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Profile of Injection Drug Use in Atlantic Canada

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PPHB Atlantic Regional Office
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i EXECUTIVE SUMMARY

Purpose and Methodology

The spread of HIV/AIDS and other infections such as Hepatitis C among injection drug users (IDUs) in Canada has been repeatedly documented. Most of the Canadian studies on injection drug use have been conducted in larger cities west of the Atlantic Provinces. While useful research in the area of injection drug use and related risks has been conducted in the Atlantic region, this work has focussed mainly on specific regions of Nova Scotia, with relatively little emphasis on injection drug users in other Atlantic Provinces.

The present study was conducted to provide the Population and Public Health Branch (PPHB) Atlantic regional office of Health Canada and other stakeholders with a baseline profile of what is currently known about the issue of injection drug use across the four Atlantic Provinces. The compilation and synthesis of the available information was guided by several main research questions.

What is known about:

1. The types of drugs being injected, the drugs of choice, and the settings in which drugs are being injected?
2. The demographic characteristics of the region's IDUs (e.g. gender, age, education, urban/rural settings)?
3. The prevalence of unsafe injection and sexual risk activities among the region's IDUs?
4. The prevalence of HIV, Hepatitis B, Hepatitis C and other communicable diseases among IDUs in the Atlantic Provinces?

A combination of quantitative and qualitative data collection methodologies was used, including self-administered written questionnaires (i.e. Key Informant Questionnaire and Provincial Epidemiological Survey) and key informant telephone interviews. A purposive sampling methodology was used, and attempts were made to reach all service providers whose work focusses primarily or extensively on issues related to injection drug use (e.g. needle exchange programs, street outreach programs), as well as a broader spectrum of other government and non-governmental organizations and agencies which likely had relevant information to provide in relation to the project's research questions (e.g. AIDS and Hepatitis C organizations, Narcotics Anonymous, addiction treatment centres, correctional services, public health, and law enforcement).

Main Findings

A total of 77 key informants, representing a diversity of injection drug use–related work and personal experiences across the four Atlantic Provinces completed the written *Profile of Injection Drug Use* questionnaire. Participants most commonly included nurses, harm reduction committee members, police officers, program directors, needle exchange/street outreach workers, addictions counsellors, and physicians. Several individuals self-identified as current or ex-users, and some as sex trade workers. Epidemiological and surveillance information was received from all recipients of the Provincial Epidemiological Survey, and a total of 20 key informants whose work focussed exclusively or most extensively on issues related to injection drug use participated in the interviews.

Information on Drug Use and Injection Activity

Drugs Being Injected and Drugs of Choice. The data indicated that a variety of drugs are being injected by Atlantic Canada's IDUs. However, opiates (82%) and cocaine/crack (77%) are by far the two most commonly identified types of drugs across the region. Of the opiates, Dilaudid emerged as the most common (i.e. 75% of all key informants reporting an awareness of it being injected in their communities), followed by heroin (47%), morphine (34%) and Demerol (27%). Amphetamines/stimulants other than cocaine and steroids were the only other classes of drugs to be identified relatively frequently (27%–37%) — i.e. none of the others was cited by more than 15% of key informants.

Participants were asked to indicate the top drugs of choice among injection drug users in their communities. Dilaudid and cocaine/crack were identified as either the first or second choice by the vast majority of all respondents across the region. However, a closer examination of the data revealed that many IDUs in Atlantic Canada prefer the combination of an opiate plus cocaine/crack (i.e. used separately or together in a "speedball" to "level out" the experience). In some areas (e.g. Halifax), many of the Dilaudid injectors are also known to smoke crack. Although not as popular as Dilaudid, MS Contin also appears to be a preferred opiate among some IDUs. Several key informants indicated that problems with the quality of the heroin in the region are linked to it being less commonly preferred than the prescription narcotics.

Several other patterns pertaining to the drugs of choice among Atlantic Canada's IDUs stem from the questionnaire and interview data:

- Dilaudid appears to be relatively more popular among New Brunswick's and Nova Scotia's IDUs than among those from the other two provinces. That is, a preference for cocaine/crack rather than Dilaudid was identified by most respondents from Prince Edward Island and Newfoundland.

- Drugs of choice are heavily dictated by their availability and accessibility (e.g. Dilaudid is readily available in most parts of Atlantic Canada, and is less expensive than other opiates such as heroin).

    - Respondents across various settings in Nova Scotia and New Brunswick attributed Dilaudid's popularity to it being prescribed too liberally by some physicians and to the problem of "double doctoring" (i.e. individuals obtaining the same prescriptions from more than one physician). As a consequence, many pills simply end up for sale on the street.

    - A few respondents from Nova Scotia also partially attributed Dilaudid's widespread availability to the lack of methadone programs (i.e. physicians commonly prescribe Dilaudid to individuals on the methadone program waiting list).

- Many IDUs who inject crack cocaine begin by snorting or smoking the drug. Once they have tried injecting, however, the "immediate rush" of the needle becomes their preferred method of delivery. The vast majority of key informants interviewed also commented on the increase in violent crime associated with crack/cocaine.

- While highlighting the absence of prevalence data on IDU, the majority of respondents from Newfoundland indicated that the use of injection drugs appears to be much less frequent than the use of alcohol, cannabis or the oral utilization of prescription drugs.

- Alcohol abuse tends to go hand in hand with the injection of prescription drugs, particularly in more rural areas, and it is not uncommon for rural IDUs to report being intoxicated the first time they ever injected.

Injection Drug Use Settings. Injection drug use clearly occurs in a variety of settings in addition to the user's place of residence. The most commonly reported settings across the Atlantic region were crack houses, correctional facilities, the street, and house parties (i.e. identified by 62%–75% of all respondents, respectively). Bars/pubs clubs (30%) and shooting galleries (47%) were also specified as injection settings by a substantial proportion of respondents across the Atlantic region. Although less common, the data also indicate that injection drug use occurs in at least some of the Atlantic region's educational institutions (i.e. community colleges/universities and public schools) and addiction treatment centres.

Certain provincial similarities and differences emerged from the analyses. For instance, while house parties and "the street" (e.g. alleyways, coffee shops, washrooms) were identified by the majority of respondents in all provinces, no one from either Prince Edward Island or Newfoundland was aware of any shooting galleries in their communities, and very few had knowledge of any crack houses.

Other main findings related to injection drug use settings include:

- Most of the injection drug use on Prince Edward Island and in Newfoundland occurs within the users' own homes or at house parties.

- Crack houses and shooting galleries are particularly common in certain parts of Nova Scotia and New Brunswick, including larger centres such as Halifax, as well as in smaller cities and towns (e.g. Fredericton, Saint John, Sydney, Glace Bay).

- Extremely high-risk needle use activity has been evidenced in some settings (e.g. "rooming houses" in Halifax) where addicts have been known to sift through sharps containers to retrieve any remaining residue in the syringes.

- It is not uncommon for federal inmates whose drug of choice is cannabis to begin injecting following incarceration in an attempt to avoid detection through urinalysis testing (i.e. cannabis can be detected for up to a month following ingestion, whereas certain injectable drugs have much shorter windows of detection).

Demographic Characteristics and Trends

The quantitative and qualitative data yielded much information related to gender, age, education and other demographic characteristics of the Atlantic region's injection drug users. As outlined below, key informants also identified a number of patterns and trends related to various demographic variables.

- Injection drug use is generally more prevalent among males than females.
- The incidence of injection drug use is increasing among females.
- Gender differences in terms of power control (e.g. women being used sexually when buying/selling drugs).
- Gender differences in the approaches taken to obtain drugs (e.g. women more likely to be involved in the sex trade, whereas men are more likely to be involved in crimes such as drug dealing, theft and armed robbery).
- Although there are certainly exceptions to the rule, the majority of injection drug users have not completed high school, and most are economically and socially marginalized.
- While injection drug use has no age boundaries, the majority of injection drug users are between the ages of 18 and 44. Within this range, 25 to 34 years of age is most common, although many underscore the prevalence of injection drug use among youth (i.e. 18–24 years of age).
- A trend toward a decreasing age at first injection has been observed by several key informants, with many noting the increasing incidence of injection drug use among their community's youth. It was also indicated that younger IDUs are less likely to seek help/treatment than their older counterparts.
- It is relatively common for older, long-term injection drug users to have become addicted to opiates as a consequence of a prescription for physical pain or injury (i.e. over time, switching from oral administration to injecting as a more efficient and effective mode of drug delivery).
- A few differences in terms of urban versus rural injection drug use were noted. While acknowledging that injection drug use does occur in Atlantic Canada's most rural areas, several key informants indicated that the overall incidence of injection drug use was greater in urban centres. Others commented on the greater level of secrecy and effort involved in accessing certain drugs in rural areas (e.g. having to know a dealer and be personally integrated into the injection drug–using community).
- While the exact numbers of IDUs across the Atlantic region are impossible to determine, several regional and provincial "hotspots" emerged from the data. From a regional perspective, Nova Scotia and New Brunswick have the greatest number of injection drug users. However, each province also appears to have its own relative "hotspots."
  - New Brunswick, Prince Edward Island and Newfoundland participants perceived their provinces' larger centres as the main areas of IDU activity.
  - Key informants from Nova Scotia emphasized the prevalence of injection drug use in its largest centre (Halifax-Dartmouth). However, they also highlighted the prevalence of injection drug use in smaller and more rural communities in the province's northern (particularly the counties of Cumberland and Pictou) and eastern (Cape Breton) regions.

- Atlantic Canada's IDU population is also commonly characterized as very mobile (i.e. many have migrated to and from larger urban centres west of the region).

Injection and Sexual Risk Activities

Substantial insight in the prevalence of various injection and sexual risk activities of IDUs in the Atlantic region was provided by the key informants in the questionnaires, as well as the more detailed interviews. In short, the data corroborate the prevalence of various unsafe injection and sexual behaviours, and highlight the relatively greater incidence of the latter.

- On average, key informants estimated the prevalence of sharing dirty needles at between 25% and 50% of IDUs in their communities, and the prevalence of "booting" (i.e. the drawing of blood back into the syringe and re-injecting one or more times) at between 50% and 75%.

- Estimates for the other unsafe needle use practices approximated 50%, indicating that on average key informants contend that almost one half of their community's IDUs are sharing injection equipment such as spoons, filters and water; "front or backloading" (i.e. transferring part of the drug solution from one syringe to another); sharing dirty needles; and sharing needles cleaned with bleach.

- Key informants underscored the finding that the majority of Atlantic Canada's injection drug users are engaging in various unsafe sexual practices.

  - The most commonly identified sexual risk activity was unsafe sex with regular partners (i.e. estimated prevalence of 75%–100% of IDUs). Although slightly lower, the estimated prevalence of unsafe sex with casual sexual partners and sex trade clients averaged roughly 75%.

- The data also indicate that a substantial proportion of the region's IDUs are involved in the sex trade (e.g. more than two thirds of all respondents estimated that 25% of IDUs in their communities were involved in the sex trade).

- Key informant interviews yielded several main themes pertaining to the effectiveness of current safer sex and safer needle use messages oriented to IDUs.

  - Building/gaining the trust of IDUs in a one-on-one environment is key to effectively delivering messages.

  - Messages have the most credibility and impact when they come from peers or "natural helpers" (i.e. ex-users).

  - IDUs are generally more receptive and knowledgeable about safer needle use messages than those relating to safer sex, and are more likely to use safer needle practices than safer sex.

- The sharing of spoons and filters is more common than the sharing of needles, and appears to be the most prevalent unsafe injection activity (i.e. "booting" is standard, but its implications in terms of disease transmission are less clear).
- Many IDUs are afraid to access clean needles. Most needle exchange sites are reaching only a small proportion of IDUs.
- Messages are generally least effective when delivered when a user is very high. For many, safer needle use is of low priority when desperate for a fix.
- In the prison environment, safer injection messages are easier to convey than those relating to safer sex, as very few inmates will acknowledge same sex experiences.
- Akin to other youth, many young IDUs (including inmates) have a sense of invincibility and are more likely than their older counterparts to ignore harm reduction messages.

- In addition to the obvious risks of communicable diseases associated with unsafe sexual and needle use practices, IDUs are also at risk for a multitude of other physical and psychosocial risks (e.g. abscesses, malnutrition, homelessness, mental health problems, sexual assault, crime).

Communicable Disease Testing and Prevalence

Reported Cases. Data on the cases of HIV/AIDS, Hepatitis B and Hepatitis C reported to the end of 1999 were obtained from the provincial departments of health. While IDU-related risk factor data were provided for HIV AIDS and Hepatitis C, the Hepatitis B surveillance data were particularly scant and incomplete. In short, the provincial surveillance reports indicate that:

- Hepatitis C is the most prevalent of the three communicable diseases across the Atlantic region. Nova Scotia (2197) and New Brunswick (1053) report the most cases, followed by Newfoundland (321) and Prince Edward Island (240). Hepatitis B and HIV AIDS are relatively less common, although certainly existent.

- There is a significant gender difference in the reported number of HIV/AIDS and Hepatitis C cases. Males comprise the majority of all reported cases: ranging from 77% (Newfoundland) to 89% (Nova Scotia) for HIV AIDS; and from 64% (Nova Scotia) to 75% (New Brunswick) for HCV.

- Injection drug use is proportionally a much greater risk factor in terms of the reported cases of Hepatitis C than of HIV/AIDS. In New Brunswick, for instance, a history of injection drug use was identified for approximately 15% of HIV/AIDS cases and 41% of all Hepatitis C reports.

Prevalence Estimates of Testing and Infection Rates. The epidemiological figures above do not include the people who are infected but have not been tested, or those who have been tested but whose results have not been reported to the provincial health departments. While corroborating the main findings from the provincial epidemiological databases, the key informant questionnaire and interview data provided additional insight into the prevalence of HIV, HBV and HCV among Atlantic Canada's IDUs.

- The majority of IDUs in the region have not actually been tested for these communicable diseases.
  - While it is estimated that slightly more IDUs have been tested for Hepatitis C than for either HIV or Hepatitis B, the vast majority (80%) of key informants contend that the proportion of those tested does not exceed 50%.
- Hepatitis C is extremely prevalent among Atlantic Canada's IDUs (e.g. estimates exceeding 85%–90% among needle exchange clients in Halifax).
- Hepatitis C is the most prevalent communicable disease among the region's IDUs. Although generally less likely to provide prevalence estimates for HIV or Hepatitis B, all key informants indicate that the rates are substantially lower than those for Hepatitis C. Many also underscored the fact that many IDUs are vaccinated against Hepatitis A and B, and are therefore immunized.
  - A seroprevalence study conducted in Cape Breton in 1996–97 also corroborates the greater prevalence of Hepatitis C among the region's IDUs — that is, the research yielded seroprevalence rates of 5% (HIV), 23% (HBV) and 47% (HCV).
- Seroprevalence data on the rates of various communicable diseases among federal inmates in the Atlantic region highlight the prevalence of infection among the prison population, and particularly among those who self-identify as IDUs.
  - An epidemiological study conducted in 1996 at Springhill Institution found overall HIV, HBV and HCV prevalence rates of 1%, 11% and 27%, respectively. Among inmates who self-identified as IDUs, however, prevalence rates of 2%, 19% and 52% were found for HIV, HBV and HCV, respectively.

1.0 INTRODUCTION

1.1 Background and Rationale

As stated in a recently released report on Injection Drug Use and HIV/AIDS, "The spread of HIV/AIDS (and other infections such as Hepatitis C) among injection drug users in Canada merits serious and immediate attention" (Canadian HIV/AIDS Legal Network, 1999). Despite the evidence that many IDUs in Atlantic Canada are engaging in risk-related behaviours, a compilation of the available information was needed to gain a greater understanding of the problem, and to guide best practices in prevention and health promotion efforts. For instance, knowing about the types of drugs being used has significant impact on the harm reduction approaches needed (e.g. limits on the number of syringes one can obtain at a needle exchange site is of little help to cocaine users, who typically have a much higher injection rate than opiate users).

The majority of the Canadian studies on injection drug use have been conducted in larger urban areas west of the Atlantic Provinces (e.g. Vancouver, Toronto, Ottawa, Montreal). While useful research in the area of injection drug use and the risks thereof has been conducted in the Atlantic region (e.g. Poulin, 1992; Grandy, 1995; Lior and Stratton, 1998; Poulin et al., 1998), this work has primarily been focussed in specific regions of Nova Scotia, and relatively little was known about IDUs in other Atlantic Provinces.

1.2 Project Objective

The primary objective of this project was to compile and synthesize available information on injection drug use across the four Atlantic Provinces to provide the Population and Public Health Branch (PPHB) Atlantic regional office of Health Canada with a baseline profile of what is currently known about the issue.

The main research questions included:

- What types of drugs are being injected? What are the drugs of choice? In what settings are drugs being injected (e.g. private homes, street, shooting galleries)?
- What are the demographic characteristics of the region's IDUs (e.g. gender, age, education, urban/rural, ethnicity)?
- What is the prevalence of unsafe injection (e.g. sharing equipment) and sexual risk activities (e.g. unsafe sex) among the region's IDUs?
- What do we know about the prevalence of HIV, Hepatitis B, Hepatitis C and other communicable diseases among IDUs in the Atlantic Provinces?

1.3 Focus of This Report

The central focus of this report is to provide the PPHB Atlantic regional office with a compilation and synthesis of what is currently known about the issue of injection drug use in the Atlantic region. Its purpose is neither to provide an assessment of IDU-related services in the region, nor to derive specific recommendations regarding harm reduction or health promotion. Ample recommendations have been provided and reiterated in several other national reports on injection drug use (e.g. National Task Force on HIV, AIDS and Injection Drug Use, 1997; Canadian HIV/AIDS Legal Network, 1999).

The present report focusses primarily on providing fundamental information to guide the prioritization and implementation of previous recommendations, while taking into account the specific characteristics of the Atlantic region's IDUs. As noted by McAmmond (1997), community differences must be considered when responding to issues and recommendations related to injection drug use.

> *Communities are very different. Even large centres like Vancouver, Toronto and Montreal have very different situations. Smaller centres and rural areas are even more different. So specific solutions have to come from the community level. National models, guidelines and resources can be helpful, but they must be flexible enough to be adapted to circumstances and needs in each community* (p. 16).

This report uses a comparative framework and provides a profile of injection drug use (i.e. based on the four main research questions presented in Section 1.2) within each of the four Atlantic Provinces and the region as a whole. A summary of the methodology used for data collection is presented in Section 2.0, and the main research findings are presented in the third section. A synopsis of the initiative and main findings is presented in the Executive Summary, and the listing of related research and documentation stemming from the region is appended to the report. All data collection tools are also provided as appendices.

2.0 METHODOLOGY

2.1 Project Outline

The *Profile of Injection Drug Use in Atlantic Canada* was carried out in four main phases over a six-month period: (1) Research Design and Methodology; (2) Data Collection; (3) Data Entry; and (4) Final Report. A combination of quantitative and qualitative data collection approaches were used, including written surveys, key informant interviews and literature searches.

A total of 44 days between February 24 and August 25, 2000 were allotted for the project's completion. The approximate time frames for each of the project's phases and a synopsis of their main components are delineated in Table 1 below.

Table 1. Project Outline: Phases and Main Components

I. Research Design and Methodology (10 days)
• Generation of Key Informant lists. • Development of the Key Informant Questionnaire, Interview Guide, Provincial Epidemiological Survey and cover letters. • Consultation with Atlantic PPHB and other key stakeholders regarding project design and methodology. • Administrative tasks related to distribution (e.g. preparation of mailing lists, arranging for translation, printing of questionnaires). • Distribution of Key Informant Questionnaires (164 locations across Atlantic Canada) and the Provincial Epidemiological Survey to the four provincial departments of health.
II. Data Collection (13 days)
• Literature and document search (e.g. journal publications, bibliographies, websites). • Initial telephone contact with all *List A* Key Informants (i.e. introducing the initiative; explaining the purpose of the research; scheduling of telephone interviews). • Key informant telephone interviews and transcription of interview data. • Follow-up regarding non-returns and major gaps in written survey submissions.
III. Data Entry and Analysis (9 days)
• Creation of a database for data entry. • Data entry (77 forms), compilation and analyses.
IV. Final Report (12 days)
• Preparation of a draft Final Report. • Consultation with PPHB (and other stakeholders, as necessary) regarding draft Final Report. • Revision and resubmission of Final Report for Atlantic PPHB approval. • Printing final versions of the required English documentation and arranging for its translation.

2.2 Questionnaires and Interview Guides

2.2.1 Key Informant Questionnaire. The *Profile of Injection Drug Use in Atlantic Canada* questionnaire (see Appendix A) was designed to gather information pertaining to the study's four main research questions. Developed in consultation with the PPHB Atlantic regional office and a select sample of key informants (e.g. Mainline), this self-administered questionnaire was available in both English and French, and required approximately 10 minutes to complete. While the majority of questions were close-ended, a number of open-ended items were also included, enabling participants to expand and/or clarify on certain issues. To maximize response rates, a cover letter explaining the rationale and importance of the survey (Appendix A), as well as a self-addressed stamped envelope, were included with the questionnaire.

The questionnaire consisted of 20 questions, divided into four sections: *(a) Background Information* — meant to gather basic information about respondents' injection drug use-related work experience, occupation and work setting; *(b) Information on Drug Use and Injection Activity* — designed to assess various demographic characteristics of the region's injection drug users, as well as information pertaining to the types of drugs being injected, the drugs of choice and injection settings; *(c) Injection and Sexual Risk Activities* - examining the prevalence of unsafe injection and sexual behaviours among the region's IDUs and *(d) Documentation and Additional Comments* – asking respondents to list any research, reports, documentation, additional key informants and additional comments related to injection drug use in the Atlantic region.

2.2.2 Provincial Epidemiological Survey. This 12-item questionnaire was designed specifically to gather more extensive epidemiological and surveillance information related to the prevalence of HIV, Hepatitis B, Hepatitis C and other communicable diseases among the Atlantic region's IDUs. As shown in Appendix B, this questionnaire consisted of a combination of close-ended and open-ended items, assessing the incidence of injection drug use as a risk factor for the various communicable diseases over the past decade, as well as trends or patterns in epidemiology among the region's IDUs. The survey was distributed to the provincial health department representatives in each of the four provinces who were identified as authorities in the area of communicable disease surveillance and epidemiology.

2.2.3 Key Informant Telephone Interview Guide. Key informant telephone interviews were structured around a series of 12 open-ended questions, designed to gather more in-depth qualitative data related to the project's four main research questions. This tool was developed to compile information from the most knowledgeable and experienced injection drug use–related service providers in the region (e.g. needle exchange sites, methadone providers). In addition to gathering background information related to the role/experience of key informants, the interviews elicited detailed comments pertaining to demographic characteristics of IDUs across the region, drugs being injected, drugs of choice, injection settings, prevalence of communicable diseases, harm reduction practices, as well as IDU-related education/support resources (see Appendix C). Detailed notes were taken by the interviewer during the consultations, and the data were transcribed immediately following each interview.

2.2.4 Data Analyses. A database was created with Microsoft Access 97 for the computer entry of all questionnaire and interview data. All quantitative data were exported to Microsoft Excel 97 for descriptive statistics, tabulations and analyses.

2.3 Key Informant Sampling and Follow-up Strategies

A list of 164 key informants was generated for the purpose of the project's sampling strategy. To ensure that key informants were not overlooked, this list was discussed with a select sample of the region's key service providers, including Mainline Needle Exchange, AIDS service organizations providing a needle exchange program, RCMP drug awareness officials, and addiction services representatives. The breakdown of key informants by province is provided in Table 2.

As shown in Table 2, two contact lists were generated for this purposive sampling strategy. *List A* consisted of 34 service providers whose work focusses primarily or extensively on issues related to injection drug use (e.g. needle exchange programs, street outreach programs, methadone service providers). *List B* consisted of a broader spectrum of 130 government and non-governmental organizations and agencies whose work does not necessarily focus extensively on injection drug use, but who likely had relevant information to provide in relation to the project's research questions. Examples include AIDS service organizations, Hepatitis C Society of Canada, Narcotics Anonymous, Native Friendship Centres, John Howard/Elizabeth Fry societies, addiction treatment centres, federal and provincial correctional services, public health and law enforcement.

The Key Informant Questionnaire was mailed to all service providers on both lists, and recipients were given approximately 14 days for survey completion. The cover letter for *List A* recipients invited them to participate in the profile's second phase, consisting of a more in-depth telephone interview. To maximize response rates, an initial telephone contact was made to all *List A* key informants (i.e. introducing the initiative, explaining the purpose of the research, and scheduling the telephone consultations). Several days prior to the deadline for the return of questionnaires, key informants on both lists whose written surveys had not been received or contained major gaps received a follow-up call.

A total of 20 interviews were conducted with key informants. On average, the length of these consultations was one hour, and ranged from 30 to 90 minutes. Participants were sampled primarily on the basis of experience and expertise related to injection drug use within their respective provinces. While most participants were selected from *List A*, a few individuals from *List B* were also interviewed to ensure adequate provincial representation (Appendix D). In short, interviews were conducted with representatives of all needle exchange programs, AIDS service organizations and street outreach programs on *List A*. Several physicians involved in methadone maintenance/treatment were also interviewed, as were a number of additional individuals identified through the research process as extensively knowledgeable about injection drug use issues in their communities.

Table 2. Key Informant Sampling Strategy (N = 164)**				
List A (N=34)	**NB**	**NS**	**PE**	**NF**
▸ Needle Exchange Programs (NEPs)	1	3	--	--
▸ AIDS Service Organizations – with NEPs	1	--	--	1
▸ Street Outreach Programs	2	2	1	
▸ Methadone Programs/Service Providers	10	11	1	1
List B (N=130)				
1. Community Partners (39)				
A. AIDS Service Organizations – without NEP's	2	3	1	--
B. Hepatitis C Society of Canada	2	1	1	1
C. Narcotics Anonymous	3	3	1	1
D. Native Friendship Centres	1	1	--	--
E. John Howard/Elizabeth Fry	7	5	1	2
F. Other	2	1	--	--
2. Corrections (13)				
A. Federal (CSC Health Care)	3	2	--	--
B. Provincial Corrections	1	3	2	2
3. Law Enforcement (22)				
A. RCMP (Drug Awareness Programs & other contacts)	6	5	1	1
B. Municipal Forces & Royal Newfoundland Constabulary (RNC)	2	--	4	3
4. Provincial Health Departments (56)				
A. Provincial Health Authorities	1	1	1	1
B. Public Health (Regional Directors/Medical Officers of Health/FPT AIDS Representatives)	10	5	8	4
C. Addiction/Drug Dependency Services	8	5	5	7
Totals	**62**	**51**	**27**	**24**

3.0 MAIN FINDINGS

3.1 Participant Rate and Sample Size

3.1.1 Key Informant Questionnaire. A total of 77 key informants (28 males and 49 females) across the four Atlantic Provinces completed the written *Profile of Injection Drug Use* questionnaire. Figure 1 illustrates the provincial representation of the questionnaire sample. As shown, the greatest number of questionnaires were returned from Nova Scotia (30), followed by New Brunswick (28), Newfoundland (10) and Prince Edward Island (9).

Follow-up calls and packages returned as "undeliverable" revealed that only 139 out of 164 individuals had actually received the questionnaire, and had not forwarded it for completion to a colleague already on the mailing list. Two individuals from *List A* and three from *List B* returned uncompleted questionnaires, indicating insufficient knowledge or experience to adequately respond. As such, the 77 returned questionnaires represented an overall response rate of 55% (77/139 × 100%). As shown in Table 3, all response rates across regions (i.e. range: 43%–63%) and list recipients (i.e. 66% and 52% for List A and List B, respectively) are acceptable within the guidelines of mail survey methodology.

3.1.2 Provincial Epidemiological Survey and Key Informant Interviews. Epidemiological and surveillance information related to the prevalence of Hepatitis C and HIV/AIDS among the Atlantic region's IDUs was provided by representatives from each of the four provincial departments of health. While some data pertaining to the overall prevalence of Hepatitis B was provided by all provinces except Prince Edward Island, none of the provinces completed the items relating to Hepatitis B risk factors. Follow-up calls revealed that such data are not collected by any of the health departments in the Atlantic region.

Key informant interviews were conducted with a purposive sample of 20 individuals across the Atlantic region whose work focussed extensively or exclusively on issues related to injection drug use within their respective provinces. A breakdown of these participants by province and organizational/service affiliation is provided in Table 4.

Figure 1

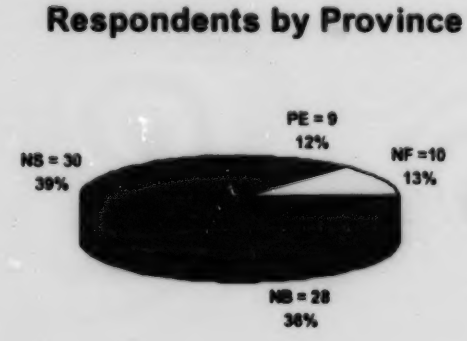


Table 3. Provincial Samples and Return Rates					
	List A		List B		List A & B
	# of Recipients	# of Returns	# of Recipients	# of Returns	Total Returns
NB	12	8	36	20	**28 (58.3%)**
NS	16	11	32	19	**30 (62.5%)**
PE	2	1	19	8	**9 (42.9%)**
NF	2	1	20	9	**10 (45.5%)**
Total	**32**	**21 (65.6%)**	**107**	**56 (52.3%)**	**77 (55.4%)**

Table 4. Key Informant Interview Participants				
	NB	NS	PE	NF
From List A				
Needle Exchange Programs (NEPs)	1	3		
AIDS Service Organizations (ASOs) – with NEPs	1			1
Street Outreach Programs	1	2		
Methadone Service Providers	1	1		
From List B				
ASOs – without NEPs			1	
Hepatitis C Society of Canada		1		
Corrections (CSC Health Care)	1	1		
Law Enforcement			1	1
Addiction Services	1		1	1
Total	**6**	**8**	**3**	**3**

3.2 Key Informant Experience Related to Injection Drug Use

3.2.1 Occupation/Role and Main Focus. The various occupations/roles and foci of respondents' injection drug use–related work or involvement are depicted in Figures 2 and 3. Percentages do not add up to 100% since participants were asked to indicate all main roles and foci. As shown in Figure 2, approximately one third (26) of the 77 questionnaire respondents were nurses, and one-quarter (19) were members of a Harm Reduction Committee (e.g. methadone, needle exchange). Several police officers (13), program directors/ managers (11), street outreach workers (11), addictions counsellors (9), physicians (9), and social workers (6) also participated. "Other" occupations/roles cited by participants included chaplain, community educator, provincial addictions consultant, parole officer, "activist" and provincial resource to the HIV/AIDS Strategy Implementation Committee. Several individuals indicated that their main role related to being a current or ex-IDU, and some to their involvement in the sex trade.

As displayed in Figure 3, the prevention of communicable diseases (e.g. HIV/AIDS, Hepatitis C) was the most commonly cited focus, and was reported by more than one half of all respondents. Care and support

for HIV or HCV positive IDUs, general drug awareness education (e.g. schools, youth groups), HIV and HCV testing, harm reduction education for IDUs, needle exchange and methadone maintenance/treatment were also commonly reported foci, and cited by approximately 20% to 30% of all respondents. Street outreach, law enforcement, drug treatment/education within a correctional facility, out-patient addictions treatment and residential addiction treatment/detoxification were cited as a main focus by relatively few participants (i.e. 12%–17%). None of the other activities (i.e. research on injection drug use, self-help group for addictions) was cited as a main focus by more than 10% of all respondents.

Figure 2

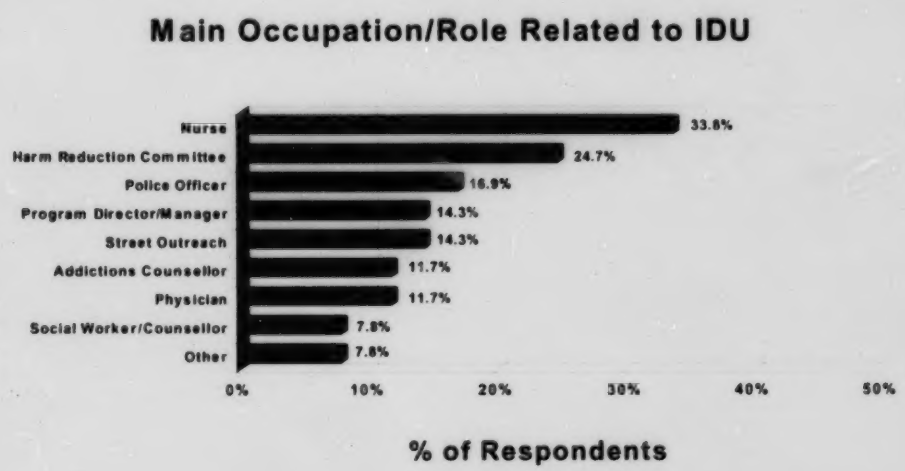
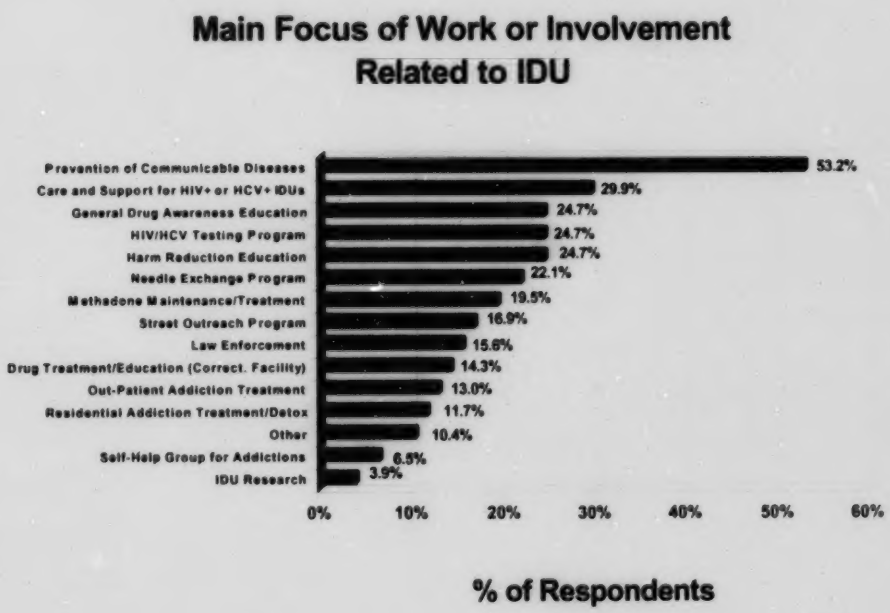


Figure 3

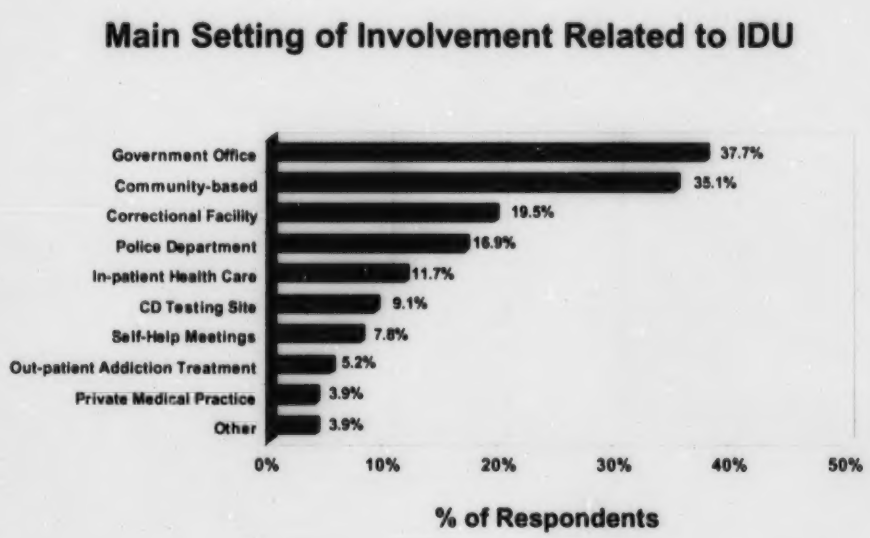


3.2.2 Settings of IDU-related Involvement. Figure 4 depicts the results of a question asking respondents to identify the main setting(s) of their involvement in IDU-related work. As shown, the most commonly reported settings were government offices and community-based organizations (38% and 35%, respectively). Various types of government offices were specified by these respondents, and included public health (17), addiction/drug dependency (10) and corrections/justice/Solicitor General (4). A variety of community-based settings were represented by the key informants: AIDS service organizations (15), street outreach programs (11), needle exchange sites (10) and Hepatitis C organizations (5). Three individuals specified another type of community-based setting (i.e. John Howard Society, community health centre, community chaplaincy).

Although relatively less common than government office or community-based settings, a substantial proportion of respondents were also working within a correctional facility (20%), police department (17%), or in-patient detox/rehabilitation centre (12%). Other settings of involvement in IDU-related work were reported by fewer than 10% of all key informants (see Figure 4). Those who indicated that their involvement took place in a setting "other"than those listed specified working on the "street" and "IDUs' homes."

3.2.3 Extent of IDU-related Experience. To gain greater insight into the extent of respondents' experience related to injection drug use, the questionnaire also asked participants to indicate how long they had been involved in work related to injection drug use, to estimate the number of IDUs with whom they had ever personally worked, and to indicate with which subpopulations of Atlantic Canadian IDUs they had knowledge/experience. These data are presented in Table 5, as well as in Figures 5 and 6.

Figure 4



As shown in Table 5, years of experience varied considerably, and ranged from 3 months to more than 30 years (M =10.4; SD = 11.9). The vast majority (91%) of all respondents reported personal work experience with IDUs. The number of IDUs with whom respondents had personally worked varied greatly (see Figure 5). Among those with some such experience, the estimated number of IDUs with whom they had worked ranged from 2 to 2000 (*Median* = 250).

Participants reported having knowledge/experience working with a diversity of injection drug-using subpopulations (see Figure 6). While approximately two thirds of all respondents (66%) cited knowledge/ experience with the general population of IDUs, almost one half of the sample also reported particular knowledge of and/or experience with persons in detox/rehabilitation (47%) and adult inmates (47%). A substantial proportion of respondents considered themselves knowledgeable and/or experienced in terms of IDUs who are homeless, young offenders, in transition from prison, street youth, Aboriginal/ First Nation and sex trade workers (33%–41%, respectively). One quarter of the sample reported knowledge/experience working with mental health clients.

Table 5. Years of Injection Drug Use–related Experience

Statistic	# of Years
Mean	10.4
Standard Deviation	11.9
Median	10
Minimum	0.25
Maximum	> than 30.0

Figure 5

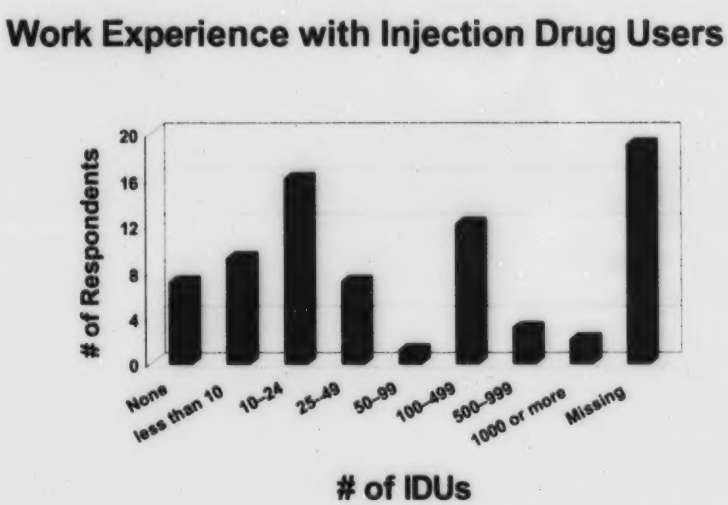
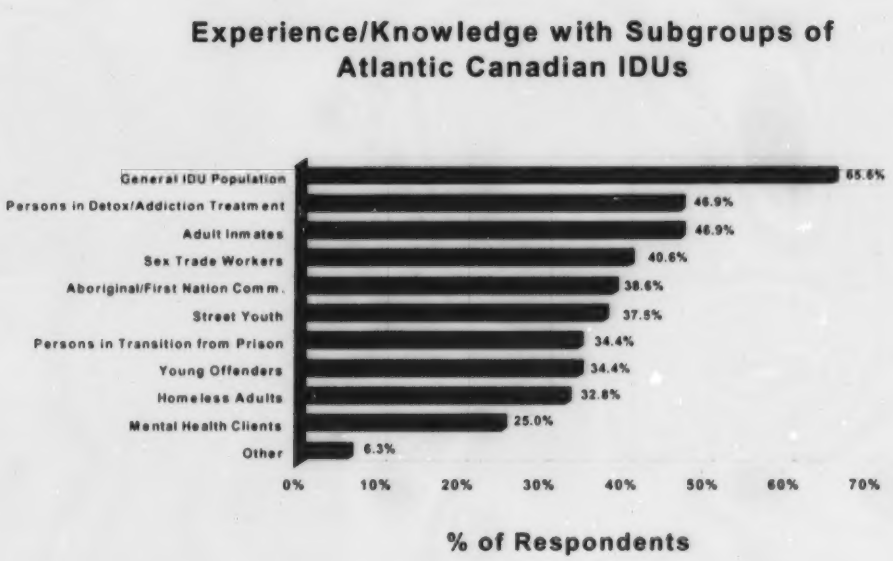


Figure 6



Participants' responses to an open-ended question asking them to describe the type of IDU work in which they are involved are presented verbatim in order of themes in Table 6 (organizational affiliations are listed in parentheses). As shown, participants from all four Atlantic Provinces described their work as focussing on prevention/control of communicable diseases (i.e. including education, testing and surveillance programs), addiction treatment/detoxification and law enforcement.

Several provincial discrepancies can also be noted. For instance, a greater proportion of participants from New Brunswick and Nova Scotia cited an emphasis on targetted IDU-related harm reduction measures, such as needle exchange programs. In contrast, only one respondent from Newfoundland reported providing a needle exchange service, and no one from Prince Edward Island reported such involvement. As shown in Table 7, these figures are consistent with the actual number of organizations providing a needle exchange (i.e. 3 in Nova Scotia, 2 in New Brunswick, 1 in Newfoundland, and none in Prince Edward Island).

The data also underscore the greater availability of methadone maintenance treatment in Nova Scotia. While a few New Brunswick physicians reported that they provided methadone to federal inmates (i.e. those who were on methadone in the community), no one from either Newfoundland or Prince Edward Island reported providing such a service (i.e. neither of the two physicians known to provide methadone in these provinces responded). In Nova Scotia, all individuals on methadone begin their treatment as an in-patient at Drug Dependency Services (Central Region). Following approximately one week of in-patient care, they are seen as out-patients for two to three months before being discharged to their own communities. While prescriptions for methadone are available in the other Atlantic Provinces, a formalized treatment program is not (see Table 7). It should be noted, however, that harm reduction committees across New Brunswick's seven health regions have been struck within the past year to determine the need/plan for needle exchange/methadone maintenance programs.

Table 6. Descriptions of Respondents' IDU-Related Work

New Brunswick

Harm Reduction Measures (including Needle Exchange Programs: Planning and Implementation)

- *We have a clean needle exchange — a clean needle for every dirty needle (We give out needles if people don't have a dirty needle to exchange as well).* (AIDS Saint John, Saint John, NB)
- *Involvement in Partners in Harm Reduction (NEP) and a team to set up Methadone Program.* (Faculty of Nursing, University of New Brunswick, Fredericton, NB)
- *We operate from a harm reduction standpoint and offer a needle exchange and free condoms.* (AIDS Saint John, Saint John, NB)
- *Distribute materials for safer sex, clean needles, and support clients when criminally charged. Provide clothes, food, shelter. Give alternatives in case they decide they want to change life style.* (Street Outreach Worker, Saint John, NB)
- *Promotion of harm reduction.* (Department of Health & Wellness, Fredericton, NB)
- *Coordinating a community steering committee to assess needs of community with a mind to developing community-based programs around IDU/prevention.* (SIDA AIDS Moncton, Moncton, NB)
- *Harm reduction; counselling; disease prevention (HCV).* (Moncton Chapter of the HeCSC, Moncton, NB)
- *Am on a committee whose task is to determine whether or not our community is in need of a needle exchange program/methadone maintenance program.* (Addiction Services, Campbellton, NB)
- *Board of "SOOP" (Street Outreach Options Program) — A harm reduction street organization. As a police officer in street crime, two of our main responsibilities are drugs and prostitution.* (RCMP Street Crime Unit, Saint John, NB)

Prevention/Control of Communicable Diseases (e.g. including education, testing and surveillance programs)

- *Communicable disease control.* (Public Health Services, Miramichi, NB)
- *General awareness about risk, prevention, testing.* (John Howard Society, Moncton, NB)
- *Pre- and post-test counselling; AIDS education at the Grade 5 level, including information on injection drugs and prevention methods. If a client is an IDU, related information on risk reduction is provided — Translation.* (Public Health Services, Edmundston, NB)
- *Education (awareness) within the realm of a family practice — Translation.* (Medical Doctor, Grand Falls, NB)
- *I meet with IDUs after they are found to be Hep C or HIV positive.* (Public Health Services, Saint John, NB)
- *Pre- and post-test counselling for various communicable diseases* (Public Health Services, Fredericton, NB)
- *Prevention and testing.* (Public Health Services, Saint John, NB)
- *Anonymous HIV testing; safer sex/prevention of STDs including AIDS, Hep B, C via education sessions.* (Public Health Services, Moncton, NB)

Drug Treatment/Education (inmates/ex-inmates)

- *General medical care of prison inmates. Hep C and HIV surveillance and treatment. Methadone maintenance.* (Westmorland Institution, Dorchester, NB)
- *Work as a nurse in CSC — Drug awareness, prevention of disease transmission, treatment of those infected as a result of IDU.* (Dorchester Penitentiary, Dorchester, NB)
- *Implement harm reduction measures on a regional scale.* (Health Care Services, CSC Atlantic Region, Moncton, NB)
- *Treatment of complications; screening for infectious disease; and methadone treatment.* (Dorchester Penitentiary and Moncton Detox Centre)
- *Work with offenders and ex-offenders. Doing drug/alcohol programs, counselling, etc. with both males and females.* (Saint John Community Chaplaincy, Saint John, NB)

Addiction Treatment/Detoxification (in-patient and/or out-patient)

- *Detox/Rehab-Addictions Counselling.* (Ridgewood Addiction Services, Saint John, NB)
- *Detox → treating withdrawal.* (Moncton Detox Centre, Moncton, NB)

Law Enforcement

- *Debriefing of confidential human sources, questioning of suspects.* (RCMP Drug Section, Bathurst, NB)
- *Drug users arrested in a course of investigation (i.e. search warrants).* (RCMP, Fredericton, NB)

Miscellaneous

- *Involved in a needle exchange program, prevention of communicable disease and care and support for HIV or Hep C positive IDUs.* (AIDS New Brunswick, Fredericton, NB)
- *Community planning, policy development.* (Addiction Services, Fredericton, NB)

Nova Scotia

Harm Reduction Measures (including needle exchange programs)

- *Needle exchange program.* (Mainline Needle Exchange, Halifax, NS)
- *Providing needle exchange at night and information distribution to the community along with providing appropriate resources for their needs.* (Cape Breton Chapter of the HeCSC, Sydney, NS)
- *Needle exchange services and all referrals and advocacy work that goes hand in hand.* (Mainline Needle Exchange)
- *Outreach worker/harm reduction with sex trade workers.* (Stepping Stone, Halifax, NS)

Prevention/Control of Communicable Diseases (e.g. including education, testing and surveillance programs)

- *Contact follow-up for bloodborne pathogens; counselling/education re. bloodborne pathogens; co-chair of bloodborne pathogens committee.* (Public Health Services, Sydney, NS)
- *I access IDUs through notifiable diseases being diagnosed (lab reports). As part of Nova Scotia's surveillance system, they are interviewed and risk assessment, education and referrals done if necessary.* (Public Health Services, Amherst, NS)
- *Coordinator of Communicable Disease Control — I plan & implement programs to educate and counsel in regard to preventing the transmission of bloodborne pathogens – provide immunization program for IDUs.* (Public Health Services, Dartmouth, NS)
- *Prevention/education related to the spread of HIV.* (Atlantic First Nations AIDS Task Force, Halifax, NS)
- *Surveillance and follow-up of Hepatitis B and C positive persons.* (Public Health Services, Bridgewater, NS)
- *Surveillance.* (Public Health Services, Wolfville, NS)
- *Only contact with IDUs would be in doing Hepatitis B/C or HIV follow-up.* (Public Health Services, Yarmouth, NS)

Addiction Treatment/Detoxification (in-patient and/or out-patient)

- *Detoxification & education of diseases caused by same and harm reduction as per education on using clean needles, etc.* (Addiction Services, Pictou, NS)
- *Physician at detox unit and methadone program at Drug Dependency Services, Central Region, Dartmouth, Nova Scotia.* (Drug Dependency Services, Dartmouth, NS)
- *Family physician services; Methadone prescriptions.* (Medical Doctor, Halifax, NS)
- *One-on-one patient care (support, counselling, treatment); methadone program development; Public Health Committee dealing with IDU and bloodborne pathogens.* (North End Community Health Centre, Halifax, NS)
- *Methadone maintenance.* (Medical Doctor, Halifax, NS)
- *Detoxification, addiction education, harm reduction, referral and counselling.* (Addiction Services, Sydney, NS)

Drug Treatment/Education (inmates and ex-inmates)

- *I see approximately 100 inmates (federal) per year and complete the above. In addition, during outbreak circumstances, I do non-nominal testing, education, risk assessment, referral, etc. including pre- and post-test counselling. Also work with Mainline as support/collaborator. Also visit provincial jail for same and plan to collaborate with Addictions Detox Program to do education on communicable disease control.* (Public Health Services, Amherst, NS)
- *Providing health care services to incarcerated individuals including IDUs. Blood testing, education, etc.* (Halifax Correctional Centre, Halifax, NS)
- *Many of our clients are drug users. A number have Hepatitis C.* (John Howard Society, Halifax, NS)
- *Involved with education re. risk behaviours and harm reduction — HIV/Hep C testing — Hep A and B vaccinations — methadone prescriptions — Support and treatment re. HIV and Hep C.* (Springhill Institution, Springhill, NS)
- *Diagnosis/treatment of federal inmates with HIV, Hep C. Methadone maintenance program.* (Springhill Institution, Springhill, NS)

Law enforcement

- *Work with street prostitutes and persons involved in IDU.* (RCMP IPOC, Halifax, NS)
- *My IDU work is incidental to arrest and drug education talks.* (RCMP, Yarmouth, NS)
- *I investigate the illegal use of Dilaudid (Hydromorphine).* (RCMP, Stellarton, NS)
- *I investigate drug dealers and have arrested a few using needles.* (Halifax Regional Police, Halifax, NS)
- *Drug Awareness Program [e.g. Drugs In the Work Place; D.A.R.E (grade school); Two Way Street; Racing Against Drugs; etc].* (RCMP Drug Awareness Program, Halifax, NS)

Prince Edward Island

Prevention/Control of Communicable Diseases (e.g. including education, testing and surveillance programs)

- *Education. Prevention and educating students in community on prevention of AIDS/HIV, communicable diseases, Hepatitis, etc.* (Public Health Services, O'Leary, PE)

Addiction Treatment/Detoxification (in-patient and/or out-patient)

- *In and out-patient detox.* (Addiction Services, Charlottetown, PE)

Law enforcement

- *I investigate persons involved in the trafficking of narcotics.* (RCMP, Charlottetown, PE)
- *Street drugs.* (Summerside Police Services, Summerside, PE)

Miscellaneous

- *Member of the F/P/T AIDS Working Group on IDU (policy focus). Chair of provincial HIV/AIDS strategy Implementation Committee.* (Department of Health and Social Services, Charlottetown, PE)
- *Mine is a changing role. In the past, I facilitated programs for parents and teens on subjects regarding all kinds of substance abuse. I also gave school presentations. With the arrival of "Addiction Services" and AIDS PEI, I have been replaced in this area except for the occasional phone call requesting information.* (Public Health Services, Charlottetown, PE)

Newfoundland

Harm Reduction Measures (including needle exchange programs)

- *Needle Exchange in AIDS Committee* (Newfoundland and Labrador AIDS Committee, St. John's, NF)

Prevention/Control of Communicable Diseases (e.g. including education, testing and surveillance programs)

- *Mostly counselling and testing for HIV/Hep C and in counselling/harm reduction around needle sharing and safer sex practices.* (Health and Community Services, St. John's, NF)
- *Mostly preventative measures re. IDU education, pre/post testing.* (Pleasantville Youth Centre, St. John's, NF)
- *Mostly on prevention level/education.* (Addictions Services, Gander, NF)
- *As above, prevention of communicable disease & surveillance at a provincial level.* (Department of Health and Community Services, St. John's, NF)

Addiction Treatment/Detoxification (in-patient and/or out-patient)

- *Detoxification, early intervention, program management.* (Addiction Services, St. John's, NF)

Law enforcement

- *Law enforcement – heroin – cocaine injection.* (RCMP, St. John's, NF)

Miscellaneous

- *Now – Provincial consultant (2 years); then – Clinical (detox, counselling – 16 yrs.)* (Health and Community Services, St. John's, NF)

Table 7: IDU-related Services in Various Atlantic Region Communities

	NB*	NS	PE	NF
Needle Exchange Programs (NEPs)	Fredericton	Halifax Sydney Amherst	--	--
AIDS Service Organizations				
- With NEPs	Saint John Fredericton	--	--	St. John's
- Without NEP	Moncton	Halifax (2) Sydney	Charlottetown	--
Hepatitis C Society of Canada (Chapters)	Moncton Fredericton	Sydney	--	Summerford
Methadone Maintenance Treatment (MMT)**	No MMT. Prescriptions available through physicians in select communities (e.g. Moncton and Saint John, but not Fredericton)	MMT is available in select communities following completion of in-patient program and out-patient follow-up through the Central Region's Drug Dependency Services (Dartmouth)	No MMT. One physician known to provide prescriptions	No MMT. One or two physicians known to provide prescriptions
Addiction Services				
• **Out-patient addictions programs in all Health Regions**	Yes	Yes	Yes (as of 09/2000)	Yes
• **In-patient detoxification in all Health Regions**	Yes	Yes	1 provincial facility (Mount Herbert) to replace 3 regional facilities (09/2000)	1 provincial facility (St. John's)
• **Longer term Provincial In-patient Detoxification & Rehabilitation Program in Health Regions**	2 Regions – Region 2 (Saint John) and 5 (Campbellton)	3 Regions – Central (Dartmouth), Eastern (Antigonish, Sydney), Western (Kentville)	1 provincial facility (Mount Herbert) to replace 3 regional facilities (09/2000)	1 provincial facility (Corner Brook)

* *Harm reduction committees across New Brunswick's seven health regions have been established to determine the need/ plan for needle exchange and methadone maintenance programs.*

** *Low-threshold community-based Methadone Maintenance Treatment is not currently available in any Atlantic province.*

3.3 Information on Drug Use and Injection Activity

3.3.1 Drugs Being Injected. Several items on the written survey as well as the interview guide were designed to assess key informants' awareness of the various types of drugs being injected within their communities. As depicted in Figure 7, responses indicate an awareness of various drugs being injected by Atlantic Canada's IDUs. However, opiates (82.2%) and cocaine/crack (76.7%) were by far the two most commonly identified types of drugs across the Atlantic region. While amphetamines/stimulants other than cocaine and steroids were identified by more than one quarter to more than one third of all respondents, hallucinogens, sedatives/hypnotics/tranquilizers and non-opiate pain killers were cited by fewer than 15%.

Data pertaining to the injection of specific types of drugs falling under the various drug classes (e.g. opiates, amphetamines and stimulants, hallucinogens) are presented in Table 8. This table includes the totals across provinces, as well as the provincial breakdowns. As shown, the most frequently identified opiate across the total sample was Dilaudid, with three quarters of all key informants reporting an awareness of it being injected in their communities. Heroin (47%), morphine (34%) and Demerol (27%) were also cited relatively frequently, while other types of opiates were reported by fewer than one quarter of respondents. Several key informants identified the use of opiates other than those listed (i.e. MS Contin (5), Percocet (1) and Percodan (1)). Given the relatively small provincial sample sizes, caution must be used in interpreting the percentages (i.e. the statistical significance of any differences across provinces cannot be assumed). Nonetheless, the data do indicate the prevalence of opiates and cocaine/crack across all Atlantic Provinces.

Figure 7

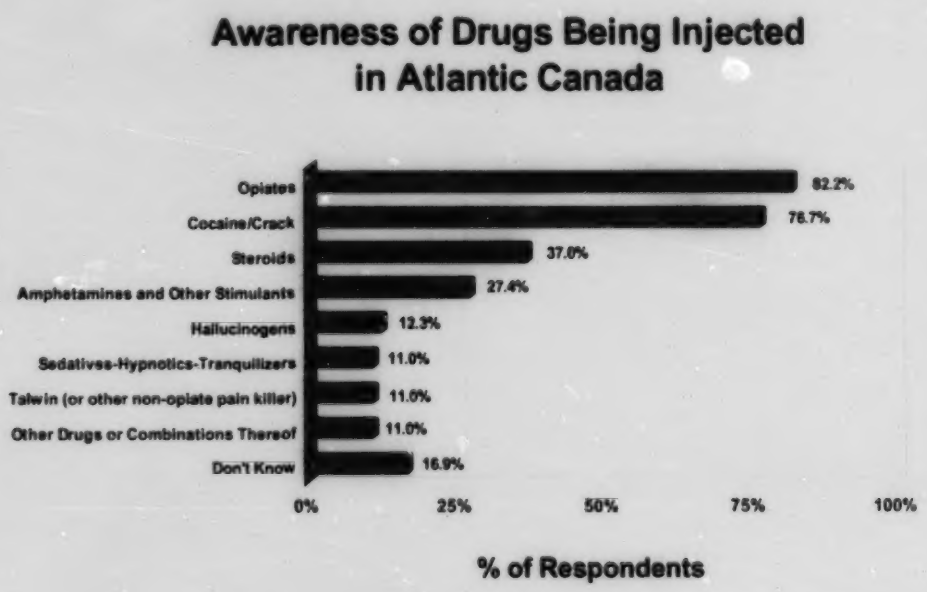
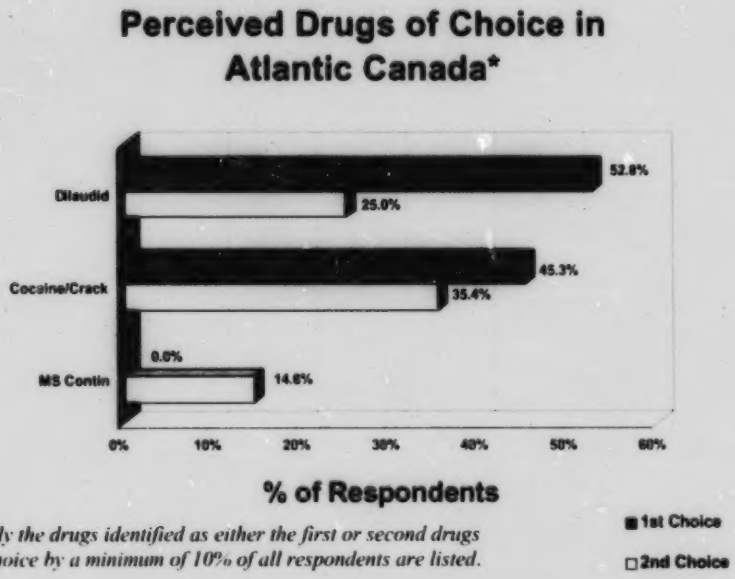


Table 8. Key Informants' Awareness of Drugs Being Injected in Their Communities

	# of Respondents (% is indicated for drug classes and totals)				
Drug	**NB (/ 28)**	**NS (/ 27)**	**PE (/ 8)**	**NF (/ 10)**	**Total (/ 73)**
Opiates	**25 (89%)**	**24 (89%)**	**5 (63%)**	**6 (60%)**	**60 (82%)**
• Dilaudid	23	23	5	4	**55 (75%)**
• Heroin	14	12	2	6	**34 (47%)**
• Morphine	9	12	3	1	**25 (34%)**
• Demerol	6	8	3	3	**20 (27%)**
• Codeine	5	8	3	1	**15 (21%)**
• Other Opiates	1	5	1	--	**7 (10%)**
• Methadone	2	4	--	--	**6 (8%)**
Cocaine/Crack	**22 (79%)**	**22 (82%)**	**5 (63%)**	**6 (60%)**	**56 (77%)**
Steroids	**9 (32%)**	**9 (33%)**	**4 (50%)**	**5 (50%)**	**27 (37%)**
Amphetamines & Stimulants Other Than Cocaine	**5 (18%)**	**8 (30%)**	**3 (38%)**	**4 (40%)**	**20 (27%)**
• Ritalin	3	4	2	4	**13 (18%)**
• Speed	4	3	1	2	**10 (14%)**
• Amphetamine	--	5	1	--	**6 (8%)**
• Dexedrine	--	2	1	--	**3 (4%)**
• Other Amphetamine/Stimulant	--	--	--	--	**--**
Hallucinogens	**6 (21%)**	**1 (4%)**	**--**	**2 (20%)**	**9 (12%)**
• LSD	2	1	--	2	**5 (7%)**
• Mescaline	2	--	--	--	**2 (3%)**
• PCP	1	--	--	1	**2 (3%)**
• Other Hallucinogen	1	--	--	--	**1 (1%)**
• DMT	--	--	--	--	**--**
Talwin	**2 (7%)**	**2 (7%)**	**4 (50%)**	**--**	**8 (11%)**
• Used Alone	--	1	--	--	**1 (1%)**
• Combined with Ritalin	2	2	4	--	**8 (11%)**
Sedatives-Hypnotics-Tranquilizers	**2 (7%)**	**5 (19%)**	**1 (13%)**	**1 (10%)**	**8 (11%)**
Other Drugs or Combinations	**1 (4%)**	**5 (19%)**	**--**	**1 (10%)**	**8 (11%)**
Don't Know	**3 (11%)**	**3 (11%)**	**3 (38%)**	**4 (40%)**	**13 (18%)**

3.3.2 <u>Drugs of Choice</u>. Participants were asked to indicate the top drugs of choice among IDUs in their communities. As indicated in Figure 8, Dilaudid (53%) and cocaine/crack (45%) were identified as the first drugs of choice by the vast majority of all respondents. Most of the key informants who had identified Dilaudid as the first drug of choice identified cocaine/crack as the second choice. Likewise, those who cited cocaine/crack as the first choice of IDUs most commonly cited Dilaudid as the second choice. MS Contin was identified by 15% of respondents as the second most common drug of choice in their communities.

Figure 8



** Only the drugs identified as either the first or second drugs of choice by a minimum of 10% of all respondents are listed.*

Rather than using either an opiate or crack/cocaine, it appears that many IDUs in Atlantic Canada are using a combination of the two types of drugs. As stated by one key informant, most IDUs are polyusers and "*The concept of <drug of choice> is becoming blurry. The majority of IDUs are using more than one drug regularly.*" Several key informants noted that it has become relatively common for IDUs to be dually dependent on opiates as well as cocaine. When used in combination, these are referred to as "speedballs" and are used by many addicts to "level out" the experience. Several respondents from Nova Scotia also underscored that many Dilaudid injectors are also into smoking crack, and pointed out the risk that this poses for being disqualified or ousted from methadone treatment programs (i.e. many will continue to smoke crack while being treated for their opiate addiction). The need for a community-based *low threshold methadone program* was highlighted by several of these respondents, observing that many IDUs are unsuccessful in following the rigid protocol of abstinence-based traditional methadone treatment. Rather than focussing on abstinence, the low threshold model emphasizes harm reduction. It neither insists on rehabilitation nor abstinence from all non-prescription drugs, and relapse is not a condition for expulsion.

The most commonly perceived drugs of choice in each of the four Atlantic Provinces are presented in Table 9. While Dilaudid was most commonly cited as the first drug of choice by New Brunswick's and Nova Scotia's respondents, a preference for cocaine/crack was identified in Prince Edward Island and Newfoundland. Dilaudid was cited as one of the top two drugs of choice by only one Newfoundland participant. One possible reason for this discrepancy is that Newfoundland has recently taken significant steps to monitor opiate prescriptions and reduce the incidence of "double doctoring" (i.e. individuals obtaining prescription drugs from more than one physician). Prior to the implementation of the Prescription Monitoring Program, there were reports of individuals who had six or more doctors and "pockets full of drugs" (i.e. most of which ended up on the street). While the problem of double doctoring in Newfoundland seems to have been largely reduced, key informants have noted a recent increase in the number of drugstore robberies, indicating that the illegal utilization of prescription opiates has not been eradicated.

Table 9. Key Informants' Perceptions Regarding Drugs of Choice in Their Communities

	# of Provincial Respondents*							
	NB (/20)		NS (/24)		PE (/5)		NF (/5)	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd
Dilaudid	12	5	14	5	--	2	1	--
Cocaine/Crack	8	9	10	7	5	--	3	1
MS Contin	--	2	--	5	--	--	--	--
Heroin	--	--	--	3	--	--	1	--

* ***Drugs identified by fewer than 10% of provincial respondents are not included in this table.***

The issue of double doctoring and the over prescribing of certain opiates was commonly cited as a concern by other key informants, particularly those from New Brunswick and Nova Scotia. A few respondents from Nova Scotia also partially attributed the widespread availability of Dilaudid to the lack of methadone programs.

> *"Dilaudid is prescribed liberally by some physicians and is easily obtainable all over the province."* (Dartmouth)
>
> *"Prescription drugs such as Dilaudid are getting more popular and accessible to more people. The easiest way for them to get Dilaudid is through prescriptions at a doctor."* (Fredericton)
>
> *"If you can't get into a methadone program in Halifax because of the long waiting list, you can ask for Dilaudid in the meantime. Some people will fake wanting to get into Methadone so they can get, sell and inject Dilaudid"* (Sydney)

3.3.3 <u>Trends or Patterns Related to Drugs Being Used/Drugs of Choice</u>. An analysis of the key informant interview data underscores several other trends or patterns pertaining to the drugs of choice among Atlantic Canada's IDUs.

- Drugs of choice are heavily dictated by their availability and accessibility (e.g. Dilaudid is readily available and less expensive than some of the other opiates). In Fredericton and Saint John, for instance, Dilaudid can be purchased on the street for approximately $15 to $20 per hit, whereas heroin costs roughly $40 per point. In Halifax, a hit of Dilaudid can currently be obtained for only $5 to $10, whereas in the early 1990s, the same amount cost roughly $45. Dilaudid is also readily accessible in Cape Breton and Nova Scotia's northern region (e.g. Pictou, Stellarton, New Glasgow) and can be obtained for approximately $10.

- While heroin is also relatively common in many parts of the Atlantic region, problems with its quality also appear to be associated with it being less commonly preferred than prescription narcotics. One ex-opiate user, for example, commented that she preferred Dilaudid or MS Contin over heroin, because with "Dilaudid or Contin, you knew that you'd get high. With heroin, you could never be sure of the kind of cut you were getting."

- Tolerance to Dilaudid builds up quickly among users. For instance, one street outreach worker in the Halifax area noted that it does not take long for a Dilaudid addict to require 10 to 15 pills per day

simply to avoid feeling ill. Several respondents revealed that it was not uncommon for individuals addicted to Dilaudid to enter a detoxification program merely to reduce their need for the drug so that they can return to "the street" and not have to inject as frequently.

- Many IDUs whose drug of choice is cocaine/crack begin by snorting or smoking the drug. Once they have injected, however, it is very difficult to go back "down" to other modes of ingestion. The "immediate rush" of the needle becomes their preferred method of delivery. There also appears to be a distinct hierarchy among cocaine/crack users, in that those who smoke or snort the drug are not perceived to be as "hard core" as those who inject. Some crack houses in the Atlantic region go so far as to refuse entry to anyone who injects.

  The vast majority of key informants interviewed commented on the increase in violent crime (e.g. armed robberies) associated with cocaine/crack. Many noted that opiate addicts were much more predictable, and much less likely to be violent than their cocaine/crack counterparts.

- The majority of respondents from Newfoundland indicated that the use of injection drugs appears to be much less frequent than the use of alcohol, cannabis or the oral utilization of prescription drugs. However, they highlighted that much of the information was anecdotal, and that truly knowing the extent of the problem required prevalence data.

- Alcohol abuse tends to go hand in hand with the injection of prescription drugs, particularly in rural communities. As noted by one respondent, many rural IDUs report being intoxicated the first time they ever injected.

3.3.4 <u>Injection Drug Use Settings</u>. Respondents were asked to indicate their awareness of the various injection drug use settings in their communities. They were presented with a listing of nine potential settings as well as an "other settings" option. They were asked to indicate, to the best of their knowledge, whether or not injection drug use was occurring in each of the settings. To reduce the possibility of guessing, a "Don't Know" option was also provided. The percentages of respondents who indicated an awareness of drugs being injected in each setting are presented in Table 10. The provincial breakdowns are provided, as are the total percentages across the entire region. It should be noted that these figures are likely underestimates of the prevalence of certain IDU settings, given that the percentages were calculated on the basis of the entire sample, including those who indicated that they did not know.

As shown, a number of settings were identified by the majority of all respondents, and most commonly included crack houses, correctional facilities, "the street" (e.g. alleyways, coffee shops, washrooms) and house parties (62%–75%, respectively). A number of other settings (i.e. bars/pubs/clubs, shooting galleries and "other") were also specified by a substantial proportion (27%–47%) of respondents across the Atlantic region. The vast majority of key informants who identified a setting other than those listed reported that injection drug use also occurred in users' own homes. Although less frequently cited, the data also indicate that injection drug use occurs in at least some of the Atlantic region's educational institutions (i.e. community colleges/universities and public schools) and addiction treatment centres.

An examination of the IDU settings by province indicate certain similarities and differences across the Atlantic region (see Table 10). In terms of similarities, house parties and "the street" were identified by the majority of respondents in all provinces. A few differences should also be noted. First, in contrast to the New Brunswick and Nova Scotia data, no one from either Prince Edward Island or Newfoundland was aware of any shooting galleries in their communities. Second, while the majority of respondents from Nova Scotia and New Brunswick were aware of injection drug use occurring in crack houses, a total of only three individuals from Prince Edward Island (2) and Newfoundland (1) reported such knowledge. Bars/pubs/clubs, in contrast, were cited as IDU settings by a relatively greater percentage of respondents from Prince Edward Island and Newfoundland. Although correctional facilities were cited most frequently by New Brunswick respondents (80%), it should be noted that a greater proportion of the New Brunswick sample reported working within a correctional facility and actually responded to the question, rather than indicating that they did not know. It is also important to recognize that there are no federal correctional facilities in Prince Edward Island or Newfoundland, and that only one respondent (who was from Newfoundland) reported experience within a provincial prison.

Table 10. Key Informants' Awareness of IDU Settings in Their Communities **

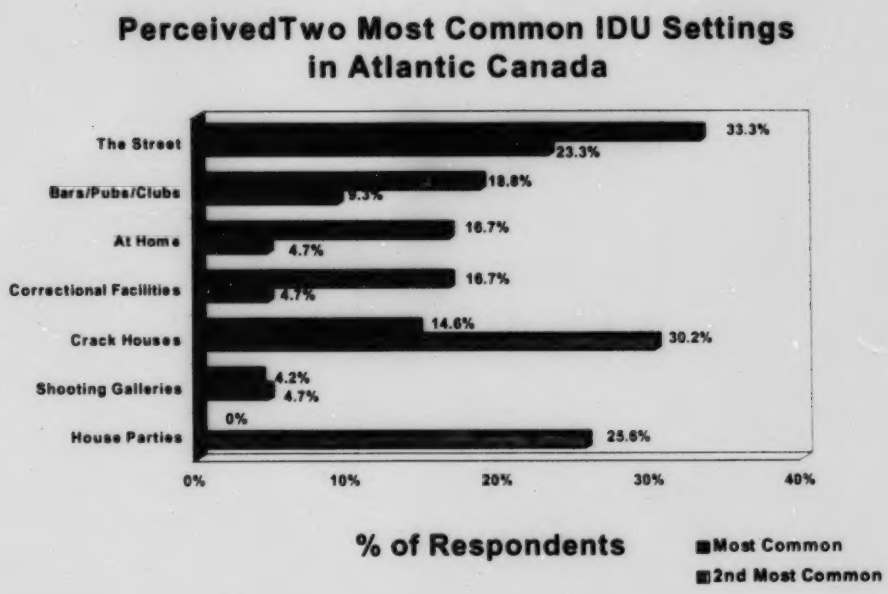
	# of Respondents Aware of IDU Settings*				
	NB	**NS**	**PE**	**NF**	**Total**
House Parties	19/25	17/24	6/6	7/10	**49/65 (75%)**
The Street	20/25	18/25	5/6	6/10	**49/66 (74%)**
Correctional Facilities	20/25	15/26	2/5	3/8	**40/64 (63%)**
Crack Houses	19/25	17/26	2/5	1/7	**39/63 (62%)**
Bars/Pubs/Clubs	9/23	11/24	4/6	5/9	**29/62 (47%)**
Shooting Galleries	10/23	8/25	--	--	**18/61 (30%)**
Other**	6/25	9/26	2/6	2/10	**19/67 (28%)**
Community Colleges/Universities	6/21	2/23	2/5	2/8	**12/57 (21%)**
Public Schools	7/22	2/23	1/5	1/8	**11/58 (19%)**
Detox/Addiction Treatment Centres	3/21	4/23	1/5	1/8	**9/57 (16%)**

** Denominators reflect the number of participants who responded to the item.*

*** Other=In their own homes (13); Public washrooms (2); Raves (1); Sports facilities for injecting steroids (1); In their cells (1); Everywhere (1).*

Figure 9 provides a compilation of the two most common injection drug use settings across the entire Atlantic region. As shown, "the street" was perceived as the most common setting across the region, and was identified by one third of all respondents. Several other settings were identified as most common by 15% to 19% of the sample (i.e. crack houses, correctional facilities, at home, bars/pubs/clubs). Crack houses, house parties and "the street" were frequently identified as the second most common settings for injecting drugs.

Figure 9



3.3.5 Trends or Patterns Related to IDU Settings. The key informant interviews yielded additional insight into the settings of injection drug use in Atlantic Canada. An analysis of the data obtained revealed the following main findings:

- Most of the injection drug use on Prince Edward Island and in Newfoundland occurs within users' own homes or at house parties.
- Crack houses and shooting galleries are particularly common in certain parts of Nova Scotia and New Brunswick, including smaller cities and towns. Key informants from Saint John and Sydney, for instance, estimated that there were a minimum of 15 to 20 crack houses/shooting galleries within their communities. A number of crack houses/shooting galleries are also known to exist in various outlying areas of Cape Breton (e.g. Glace Bay, New Waterford). "Spoon houses" (i.e. places where individuals can buy and inject drugs) were also cited as very common in Metro Halifax.
- A number of key informants from New Brunswick, Nova Scotia and Newfoundland emphasized the prevalence of injecting "on the street," pointing to the frequent discovery of used needles in various public locations (e.g. parks, community centres, washrooms, side of the road).
- A trend toward greater street involvement has also been identified by key informants from the Halifax area. For instance, it was noted that it was relatively common to see a number of individuals with no fixed address living together temporarily in one room under squalid conditions. Several of these "rooming houses" are known to Mainline Needle Exchange, which provides them with sharps containers for each floor.

Particularly high-risk needle use activity has been evidenced in rooming houses where, in a desperate attempt to get high, addicts have been known to sift through sharps containers to retrieve the residue left in each syringe. In addition to the risks of mixing drugs of unknown quality/quantity, the risks of contracting a communicable disease from one of many syringes are increased tremendously.

- Several trends were noted by key informants involved in federal correctional facilities. First, the majority of inmates who inject drugs do so within their cells. Second, many inmates report being initiated into injection drug use while in prison. One reason for this is that cannabis can be detected through urinalysis testing for up to a month following ingestion. Certain injectable drugs, in contrast, have much shorter windows of detection and, to quote an inmate, "make it easy to beat the piss test." Consequently, it is not uncommon for inmates to initially switch from cannabis to injection drugs simply to avoid detection.

3.3.6 Additional Comments Regarding Drugs of Choice or Injection Drug Use Settings. A total of 37 key informants (48%) across the four Atlantic Provinces provided additional information in response to the item, *"What else can you tell us about the drugs of choice or injection drug use settings in your community?"* These responses corroborate many of the themes discussed earlier within this section, and are listed verbatim by province and issue in Table 11. As shown, the most common theme to emerge from the responses made by New Brunswick participants was related to the popularity and accessibility of Dilaudid. Several participants from Nova Scotia also commented on the prevalence of Dilaudid. However, the greatest proportion of comments from Nova Scotia respondents pointed to drugs of choice being heavily dictated by their availability and accessibility. The additional comments made by Prince Edward Island and Newfoundland respondents were varied and did not centre around Dilaudid. In short, the few responses from Prince Edward Island emphasized the isolation and secrecy involved in injection drug use, and to users' homes or house parties as the most common IDU settings. In contrast to respondents from the other Atlantic Provinces, several Newfoundland participants underscored the relatively low prevalence of injection drug use compared to alcohol, cannabis and/or the oral ingestion of prescription drugs.

Table 11. Additional Comments: Drugs of Choice or Injection Drug Use Settings

New Brunswick (n =17)

Drugs of Choice

- *Becoming more common every day to have a new young person under 25 come in looking for clean needles. Dilaudid is often mentioned.* (Moncton, NB)
- *Dilaudid is a prescription drug supplied by physicians. It is not smuggled into the country like other drugs.* (Fredericton, NB)
- *I am finding that clients are so desperate with the addiction that they lose all sight of basic needs. Also, Dilaudid is very hard on women (Don't know reason yet. I am also seeing an extreme needle climb as a result of Dilaudid).* (Saint John, NB)
- *In this region, Dilaudid and MS Contin are more easily accessible and are therefore the #1 and #2 choice. However, the #1 choice would be heroin if obtainable.* (CSC Atlantic Region, Moncton, NB)
- *There has been more Dilaudid in last few years.* (Moncton, NB)
- *Most users I have met do not use heroin.* (Fredericton, NB)
- *The problems skyrocketed in Saint John in the early 1990s when crack appeared in the city and is getting worse now with doctors giving prescriptions for Dilaudid like they were candy.* (Saint John, NB)
- *Prescription drugs such as Dilaudid are getting more popular and accessible to more people. The easiest way for them to get Dilaudid is through prescriptions at a doctor.* (Fredericton, NB)

Injection Drug Use Settings

- *A lot of people just inject at home.* (Moncton, NB)
- *Most of our clients use alone (i.e. in woods, in vehicles, away from usual friends). Cocaine users mostly use alone, as do codeine users. Dilaudid users tend to use with others more. They tend to use together in very small groups.* (Miramichi, NB)
- *Larger centres have more activity.* (Fredericton, NB)

Miscellaneous

- *Community Steering Committee has identified the need to become educated around the issue of drug use. We will be working with Addiction Services, RCMP and hopefully the IDU population to access info.* (Moncton, NB)
- *Little care is taken to clean needles. New syringes are extremely difficult to obtain. Fear of being caught injecting drugs causes unsafe practices.* (Dorchester Penitentiary, Dorchester, NB)
- *More and more people getting involved.* (Saint John, NB)
- *A significant number of inmates have recently been IDUs. At my community institution [Westmorland], I believe the number who continue to inject is small. However, many use oral narcotics* (Dilaudid, Percocet). (Westmorland Institution, Dorchester, NB)
- *Injection drug use is much more prevalent than we suspect. Despite the needle exchange, police officers are still picking up approximately 10 used needles per shift.* (Fredericton, NB)
- *There is minimal knowledge available. RCMP have no indications of any IDU in our community.* (Campbellton, NB)

Nova Scotia (n =10)

Drugs of Choice

- *Availability seems to determine drugs used. Seems to be a lot of prescription abuse. Alcohol abuse seems to go hand in hand (outside of prisons) in rural settings.* (Amherst, NS)
- *Dilaudid is the #1 drug of choice. It is cheap and easy to transport.* (Halifax, NS)
- *Clients break down crack with lemon juice or vinegar. Clients make use of public washrooms close to drug stores (i.e. Tim Horton's washrooms).* (Halifax, NS)
- *The drug of choice is governed by the availability at any given time.* (Sydney, NS)
- *Tied to poverty and availability.* (Sydney, NS)
- *Varied to availability and trend at the time.* (Halifax, NS)

Injection Drug Use Settings

- *Usually injecting takes place in cells. Time and detection are always issues for the IDU.* (Springhill Institution, Springhill, NS)
- *IDUs will inject anywhere – alleyways, doorways, cars, etc. Injection equipment is not sterile or areas clean.* (Halifax, NS)

Miscellaneous

- *(1) Dilaudid is prescribed liberally by some physicians and is easily obtainable all over the province; crack cocaine is very popular; (2) Most of our clients inject in their own homes and most are on social assistance.* (Dartmouth, NS)
- *Concept of "drug of choice" is becoming blurry. The majority of IDUs are using more than one drug regularly. Most of the opiate use occurs at home, most cocaine use in crack houses.* (Halifax, NS)
- *They learn about IDU on the street, then come home to their [Aboriginal] communities. "They bring tricks of the trade home."* (Halifax, NS)

Prince Edward Island (n = 4)

- *Information received from several sources indicates that IDUs are sharing needles. Most are cocaine users. Dealers are "stepping on the cocaine."* (Charlottetown, PE)
- *Mostly used by persons that sell to support the habit, and is usually used in their place of residence.* (Summerside, PE)
- *Injection drug use is very secretive on the Island... those using cocaine use alone or inject at parties.* (Charlottetown, PE)
- *This is an isolated group. Most injection drug use occurs at home or at a private house party.* (Charlottetown, PE)

Newfoundland (n = 5)
• *Alcohol seems to remain the drug of choice; however, in recent years we have noticed a dramatic increase in prescription drug abuse and cocaine.* (St. John's, NF)
• *My knowledge is limited as my primary role is "harm reduction" and disease prevention.* (St. John's, NF)
• *Rates are relatively low at moment or compared to Vancouver, BC area.* (St. John's, NF)
• *Statistically, IDU is small in this province. Most information is anecdotal, with no prevalence data available. Most injection drug use, I think, would generally be related to prescription drugs.* (St. John's, NF)
• *The most common drugs in this region are alcohol and marijuana. From clients I see, none is an IDU or has not reported being an IDU.* (St. Anthony, NF)

3.4 Demographic Characteristics and Trends

3.4.1 Overview. Quantitative and qualitative data pertaining to various demographic characteristics of the region's IDUs were collected by means of the key informant questionnaires and interviews. More specifically, the questionnaire asked respondents to indicate whether they were aware of any differences in the injection drug use of males versus females, younger versus older users, users of different ethnic/cultural backgrounds, and those residing in urban versus rural areas. They were asked to comment on issues such as prevalence, drugs being used, drugs of choice, injection settings and patterns of use. Questions also inquired about the average level of formal education completed by most of the IDUs in their communities, as well as about the most common age groups of their community's IDUs. All close-ended items were supplemented with a question asking participants to explain their "Yes," "No" or "Don't Know" responses. Each key informant interviewed was also asked to comment on the demographic characteristics of IDUs in their communities, as well as to elaborate on any demographic-related trends or patterns of which they were aware. These data are summarized in Sections 3.4.2 through to 3.4.6 below.

3.4.2 Gender and Formal Education. Responses to the question of injection drug use–related gender differences varied substantially. As shown in Figure 10, more than one third of the total sample (34%) indicated an awareness of gender differences, while close to one-quarter (23%) replied that they were not aware of any differences in the injection drug use of males and females. The greatest proportion of all participants (43%) indicated that they could not answer the question. Of the 40 individuals who did respond, however, 60% reported an awareness of gender differences. While various differences in the injection drug use of males and females were identified, most of the open-ended explanations to the questionnaire item revealed three main themes (see Table 12), all of which were repeatedly corroborated during the key informant interviews:

- a greater prevalence of injection drug use among males (however, many highlight the increasing prevalence among females);
- gender differences in terms of power/control (e.g. women being used sexually when buying/selling drugs, women using the same drugs as their partners); and
- differences in the approaches taken to obtain drugs (e.g. women more likely to be involved in the sex trade, whereas men are more likely to be involved in crimes such as drug dealing, theft and armed robbery).

Figure 10

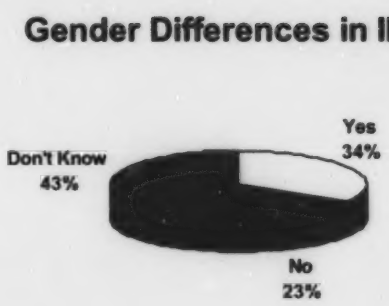


Table 12. Open-ended Responses: Gender Differences in Injection Drug Use (n = 31)

Prevalence of Injection Drug Use

- *In our centre, it is very rare to have a female IDU.* (Addiction Services, Miramichi, NB)
- *Most of our clients are males (3/4 males at least).* (Public Health Services, Moncton, NB)
- *Males inject more than females.* (Moncton Chapter of the HeCSC, Moncton, NB)
- *Most IDUs are male. Of the known Hepatitis C cases, most were infected (most likely) in their 20s (20 years ago).* (Public Health Services, Miramichi, NB)
- *Fewer women than men use injection drugs.* (North End Community Health Centre, Halifax, NS).
- *There are more males, but female numbers are increasing; 25% of our clients are women and 75% are men.* (Mainline Needle Exchange, Halifax, NS)
- *Males are more prevalent.* (Drug Dependency Services Central Region, Dartmouth, NS)
- *Appears to be more male users than females.* (Addiction Services, Pictou, NS)
- *Females are on the increase.* (Cape Breton Chapter of the Hepatitis C Society, Sydney, NS)
- *There seems to be a lot less female use, although it is increasing in teens.* (Public Health Services, Amherst, NS)
- *77% of participants (IDU) of study done by PHS & LCDC in 1997 were males.* (Public Health Services, Sydney, NS)
- *The female numbers are high* (John Howard Society of Nova Scotia, Halifax, NS)
- *Injection drug users are mostly male.* (Addiction Services, Charlottetown, PE)
- *More males than females present for detox from injection drugs.* (Addiction Services, St. John's, NF)
- *Fewer females are using injection drugs.* (Pleasantville Youth Centre, St. John's, NF)
- *There seem to be more male IDUs.* (Newfoundland and Labrador AIDS Committee, St. John's, NF)

Power/Control Issues

- *Females are used sexually when buying or selling drugs.* (Mainline Needle Exchange, Halifax, NS)
- *Many females get others to inject them.* (Moncton Chapter of the HeCSC, Moncton, NB)
- *Females seem to use whatever their partner does. Mostly use at home or house parties, clubs, etc.* (Public Health Services, Amherst, NS)
- *Men and women have different power realities, so of course their drug use reflects this.* (Sharp Advice Needle Exchange, Sydney, NS)
- *Most males try to get females to start injection drug use so that they [men] have control as their so-called "doctor."* (Narcotics Anonymous, Summerside, PE)

Approaches Used for Obtaining Drugs

- *Female users are much more likely to prostitute to obtain enough for drugs. (AIDS Saint John, Saint John, NB)*
- *Proportionally more female IDUs are sex trade workers, I think.* (Health Care Services, CSC Atlantic Region, Moncton, NB)

- *Females on cocaine are more often in sex trade.* (Drug Dependency Services Central Region, Dartmouth, NS)
- *Women tend to work street; men steal, commit crimes to buy drugs.* (Mainline Needle Exchange, Halifax, NS)

Miscellaneous

- *Females more cautious about health and spreading of disease.* (Department of Health & Wellness, Fredericton, NB)
- *Women seem to have many more problems when using heavy (i.e. menstrual cycle, very emotional, paranoia more than usual).* (Street Outreach Worker, Saint John, NB)
- *I can only state that individuals who are Hepatitis C positive and are IDUs are much more likely to be male.* (Public Health Services, Saint John, NB)
- *Seeing more men at the needle exchange site, but men tend to be picking up needles for women.* (Partners in Harm Reduction, Fredericton, NB)
- *Women seem to prefer cocaine/crack.* (Health Care Services, CSC Atlantic Region, Moncton, NB)
- *Patterns of use, choice of drugs available.* (Stepping Stone, Halifax, NS)
- *Males are taking higher dosages.* (Addiction Services, Pictou, NS)

The vast majority of the 20 key informants interviewed corroborated the written survey's main findings regarding gender differences. More specifically, many commented that injection drug use is generally more prevalent among men than women; the incidence of injection drug use is increasing among women; there are various gender-related power/control issues; and that many women are involved in the sex trade to support their addictions, while men tend to turn to more violent crimes. Qualitative analyses of the interview data point to a few additional related trends and patterns, several of which had been highlighted in previous IDU-related research conducted in the region.

- While some male IDUs are definitely involved as sex trade workers, they are more likely to be engaged in the "pimping" aspect.

- The incidence of injection drug use seems to be growing most rapidly among girls/young women, many of whom trade sex for drugs.

- Female IDUs tend to be particularly oppressed, and often the victims of physical, sexual and emotional abuse by their male partners, pimps and/or dealers.

  Mainline's 1995 needs assessment study of Halifax's IDU community (M.I.N.A.) also highlighted a gender difference in the prevalence of abuse. For instance, a total of 76% of IDUs reported having been physically abused by their partners and 37% acknowledged sexual abuse by their partners (Grandy, 1995). An examination of the data by gender revealed that women were the recipients of all the sexual abuse reported, and approximately 80% of the physical abuse. As noted by Grandy (1995), *"It was stated over and over again by the women during the interviews that their partners were more abusive, both sexually and physically, particularly on crack."* (p. 16)

- Many women do not seek addiction treatment for fear of losing custody of their children. This finding had also been underscored in Mainline's needs assessment project.

  It is perceived to be worse if you are a bad mother than a bad father and this keeps many women from entering treatment. It was said more than once by the mothers that they couldn't go to detox or other programs for fear of losing their kids. (Grandy, 1995; p. 18)

Figure 11 presents key informants' responses to the questionnaire item asking them to specify the highest level of formal education completed by most of the IDUs in their communities. As shown, a strong majority (73%) of respondents across the Atlantic region indicated that, on average, most injection drug users in their communities had not completed high school. Very few reported a lower level of formal education (less than Grade 8), while 22% stated that most IDUs had completed high school. None of the respondents reported an average level of formal education exceeding high school.

While the majority of key informants interviewed concurred that IDUs generally have a low level of education, there are certainly exceptions to the rule (e.g. college students having cocaine injection parties on weekends). One ex-user also indicated that the average level of formal education appears to have decreased among Halifax IDUs. She noted that, 10 years ago, many of her addicted peers were "middle class" and had minimally completed high school.

Figure 11

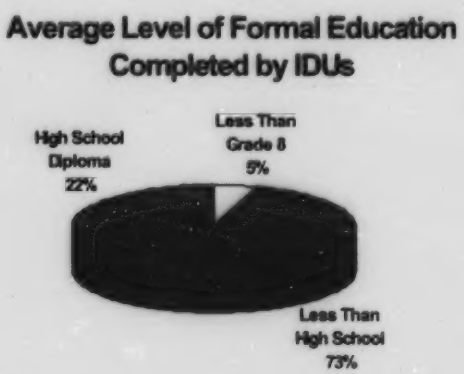
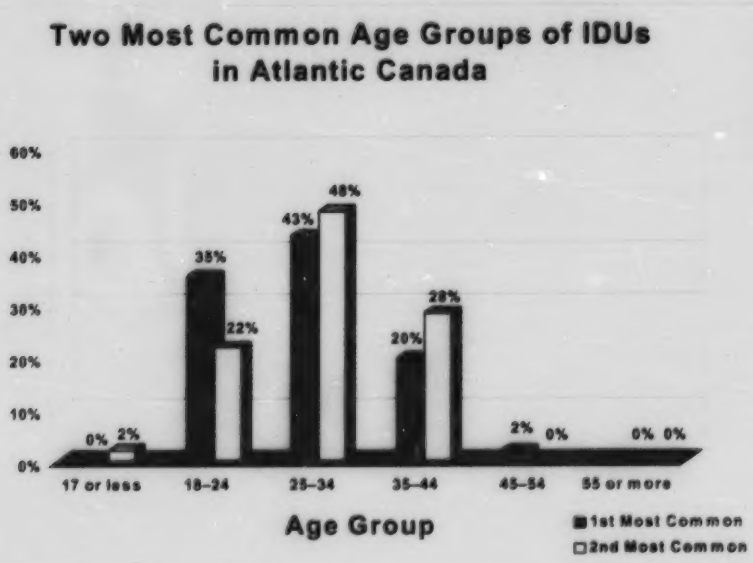


Figure 12



3.4.3 Age Differences and Trends. Figure 12 above provides a provincial compilation of responses to the item asking key informants to indicate the most common age groups of IDUs in their communities. As shown, almost all respondents (98%) stated that IDUs in their communities were most commonly between 18 and 44 years of age. Within this range, 25 to 34 years of age emerged most frequently as either the first (43%) or second (48%) most common age group of IDUs. It should be noted, however, that more than one third of key informants underscored the prevalence of injection drug use among youth (i.e. 18–24-year-olds).

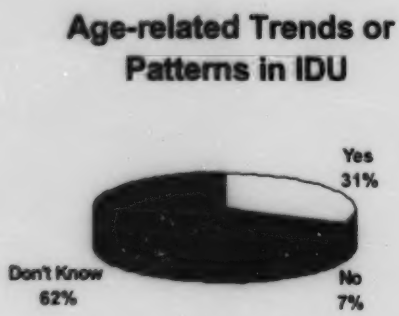
The overall level of awareness of any age differences in injection drug use was relatively low, with almost two thirds of the entire sample responding that they had insufficient information to answer the question. However, 21% of all key informants did indicate that they knew of differences in the injection drug use activity of clients of different ages. As outlined in Table 13, responses to the open-ended item asking for clarification on the types of age differences varied significantly across settings and provinces, and revealed few consistent themes. In short, the greatest proportion of comments focussed on the differences in the drugs being used by younger and older users. However, several respondents also specified differences in terms of IDU settings, and miscellaneous patterns of use. The most evident inconsistency is related to the comments on the age differences in the types of drugs being injected by younger and older IDUs. That is, while some respondents indicated that younger IDUs were more likely to be using steroids or Dilaudid, others commented that crack/cocaine was more prevalent among younger users.

Figure 13 provides the distribution of responses to the item on trends or patterns related to the age of IDUs in their communities. Again, while the overall level of awareness among survey respondents was relatively low (i.e. 62% did not know), the majority of those who responded were aware of specific age-related trends or patterns. All trends and patterns identified by these key informants are provided in the latter part of Table 13. As shown, the most frequently emerging theme across all provinces was related to the decreasing age

at first injection. That is, all but one key informant who commented on the age of first injection noted a trend toward earlier injection. The only exception was a law enforcement officer from Nova Scotia's Pictou County who stated that the most prominent IDU age group in his community appears to have shifted from young offenders to young adults within the past year.

Several respondents also highlighted age-related differences in unsafe needle use practices. Interestingly, while some key informants stated that younger clients were more likely to share injection equipment, others stated the opposite (see Table 13). It should be noted that both of the law enforcement officers (i.e. one from Halifax and one from Summerside) who commented on age-related differences in unsafe needle use practices stated that older clients were more likely to share equipment than their younger counterparts. In contrast, most of the respondents from other environments (e.g. addiction services, needle exchanges) cited younger IDUs as more likely to engage in unsafe needle use. Although there is insufficient data to clarify this discrepancy, it is possible that different age-related patterns are evident across clients of different environments. For instance, the characteristics of older IDUs known to law enforcement officers may be quite different than those known to go to needle exchange or addiction treatment facilities.

Figure 13



As was found in the analyses of the questionnaire data, the majority of key informants interviewed also underscored a trend toward earlier injection. Many commented on the increasing prevalence of injection drug use among their community's youth, and noted that their clients were generally getting younger. Despite these patterns, however, it is clear that injection drug use has no age boundaries. A health care worker in a Nova Scotia correctional facility, for instance, has provided services to an inmate who first injected at age 12.

The diversity of age ranges among IDUs was also highlighted by a physician who deals with a majority of Halifax's IDUs through the city's North End Community Clinic. Although estimating the average age of clients in his practice to be 30, he noted that his youngest client was in his teens, and that his oldest was in his sixties. He also emphasized that he did not see many of the city's younger clients, since they are less likely to seek treatment.

An additional age-related pattern emerged from the analyses of key informant interview data. That is, several participants noted that it was relatively common for older, long-term IDUs to have become addicted to opiates as a consequence of a prescription for physical pain or injury. Over time, tolerance develops and injection becomes the most efficient and effective mode of drug delivery.

Table 13: Open-ended Responses: Age Differences and Trends in Injection Drug Use

A. Age Differences (n = 15)

Drug Being Used/Drugs of Choice

- *In our experience, younger people tend to be using Dilaudid.* (AIDS Saint John, Saint John, NB)
- *The younger individuals resort to cocaine/crack more frequently, while the older groups favour the opiates.* (Health Care Services, CSC Atlantic Region, Moncton, NB)
- *Multiple drugs in younger population; fewer different drugs in older users.* (Medical Doctor, Moncton, NB)
- *The older groups are likely to be using only Dilaudid; younger ones use more cocaine.* (Drug Dependency Services Central Region, Dartmouth, NS)
- *Clients using steroids are young (18–24). Female prostitutes using Dilaudid and crack are in the 20 to 35 age range.* (Mainline Needle Exchange, Halifax, NS)
- *Young kids are using Dilaudid.* (RCMP Drug Awareness Program, Halifax, NS)

Injection Drug Use Settings

- *Older IDUs stay to themselves, while the younger ones do it in a party atmosphere.* (Cape Breton Chapter of the Hepatitis C Society, Sydney, NS)
- *Naturally, the younger they are the more difficult to find a place to inject so they will start to hang with older users or inject on street.* (Public Health Services, Amherst, NS)
- *Youth tend to use on the street.* (Newfoundland and Labrador AIDS Committee, St. John's, NF)

Miscellaneous

- *Older IDUs more likely to make use of harm reduction services.* (Department of Health & Wellness, Fredericton, NB)
- *35- to 44-year-olds are more hard core; 18- to 24-year-olds are more experimental, as are 25- to 34-year-olds* (Moncton Chapter of the HeCSC, Moncton, NB)
- *Most of our clients are 25 to 45 years old and use cocaine or Dilaudid, usually alone or in small groups, usually secretive. Crimes are involved to support the habit. Most in-patients do not have jobs; they spend all their time preparing to get high. Most have lost everything.* (Addiction Services, Miramichi, NB)
- *35- to 44-year-olds seem to use most. I am not aware of any different drugs or patterns.* (Summerside Police Service, Summerside, PE)
- *Higher dosage in older clients.* (Addiction Services, Pictou, NS)
- *It appears older addicts are experimenting with injecting drugs to get a better high.* (RCMP, Halifax, NS)

B. Age-related Trends or Patterns (n = 23)

Decreasing Age of First Injection

- *I believe people are beginning younger.* (AIDS Saint John, Saint John, NB)
- *My guess would be that people are starting to inject earlier.* (Public Health Services, Saint John, NB)
- *Starting at an earlier age and all seem to share (especially prison and 35- to 44-year-old populations).* (Moncton Chapter of the HeCSC, Moncton, NB)
- *In the last 3 years, have been seeing an increase in injection drug use among young offenders less than 18 (particularly in Pictou County area).* (Halifax Correctional Centre, Halifax, NS)
- *People are beginning to inject at an earlier age* (Addiction Services, Pictou, NS)
- *Recreational use seems to be increasing in younger (teens) age groups and young adults.* (Public Health Services, Amherst, NS)
- *IDUs coming to Mainline are younger.* (Mainline Needle Exchange, Halifax, NS)

- *Eight years ago, 95% of clients were 35+. We now say 90% are 30+ years so it is changing.* (Mainline Needle Exchange, Halifax, NS)
- *They are beginning at an earlier age.* (Addiction Services, Charlottetown, PE)
- *It seems that kids are experimenting with "harsh" drugs at an earlier age. They feel invincible.* (Pleasantville Youth Centre, St. John's, NF)

Injection Risk Activities

- *I believe that the younger clients are more likely to share. The more experienced individuals have their own "rigs."* (Health Care Services, CSC Atlantic Region, Moncton, NB)
- *Most we see are 25 to 45. Average age is 35. Mostly our sharing clients tend to be 35. Current age to seek help would be about 35.* (Addiction Services, Miramichi, NB)
- *Younger clients more likely to share. All seem to seek help equally.* (Addiction Services, Pictou, NS)
- *I feel the younger IDUs don't educate or don't care about safer injecting.* (Mainline Needle Exchange, Halifax, NS)
- *Older clients seem to be sharing more and more. I believe at this stage they don't seem to care for life any more.* (Halifax Regional Police, Halifax, NS)
- *It appears to be mostly the baby boomers and the older ones who tend to share needles. Younger are more likely to seek help.* (Summerside Police Service, Summerside, PE)
- *Late-stage users are more likely to share.* (Addiction Services, Charlottetown, PE)

Various/Miscellaneous

- *Inmates frequently state that the first time they inject is when they enter the prison.* (Dorchester Penitentiary, Dorchester, NB)
- *Older addicts tend to be experimenting with injection drug use for a better high.* (RCMP, Halifax, NS)
- *For the 1997 study – mean age at first injection: (1) for females=25.1 yrs; (2) for males=21.4 yrs.* (Public Health Services, Sydney, NS)
- *More using more than one drug regularly; starting to inject earlier.* (North End Community Health Centre, Halifax, NS)
- *One year ago, young offenders were the more prominent age group. The age group now appears to have moved to young adults.* (RCMP, Stellarton, NS)
- *People who have been clean for years are returning to old habits but are quicker to seek treatment. Younger people think it's cool.* (Cape Breton Chapter of the Hepatitis C Society, Sydney, NS)
- *Older, long-term clients more likely to seek help re. methadone.* (Springhill Institution, Springhill, NS)
- *Older clients seem to want help but due to the smallness of the community are scared to admit.* (Narcotics Anonymous, Summerside, PE)
- *There is anecdotal concern that younger people are injecting prescription drugs and alcohol.* (Health & Community Services, Provincial Addictions Consultant, Saint John's, NF)

3.4.4 Ethnic/Cultural Differences. In contrast to the various gender and age-related differences identified by respondents, the vast majority of key informants were not aware of any differences in the injection drug use of clients of varying ethnic or cultural backgrounds (Figure 14). In fact, only eight respondents reported an awareness of ethnic/cultural differences. Most of these respondents were from Nova Scotia, and noted that a greater proportion of Black IDUs used crack/cocaine than opiates. Two individuals commented that relatively few Aboriginal/First Nation IDUs access needle exchanges, and highlighted the need for culturally appropriate services. Given the number of respondents, these data must be interpreted with extreme caution. As shown in Figure 15, these data may simply reflect an insufficient level of knowledge or experience with clients of varying ethnic/cultural backgrounds. That is, a much greater proportion of the region's key informants reported having direct work experience with Caucasian/White IDUs (76%) than with any of the other groups listed. While some experience with Black (40%) and Aboriginal/First Nation (39%) IDUs was reported by more than one third of all respondents, experience with other ethnic/cultural groups was minimal. The key informant interview data also highlighted the relative lack of multicultural experience (i.e. most reported that the majority of their clients were Caucasian).

Figure 14

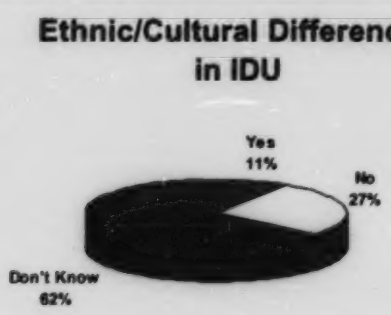
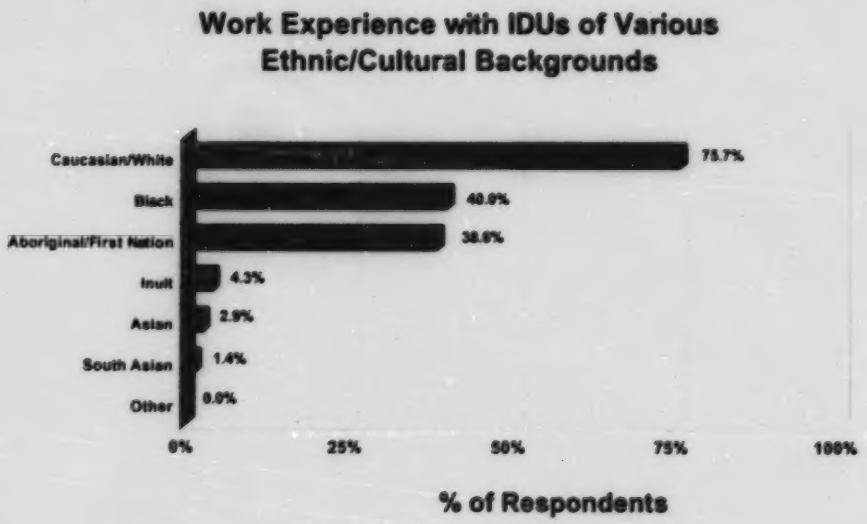


Figure 15



3.4.5 Urban/Rural Differences. A breakdown of participants' awareness of any urban/rural differences in IDU activity is provided in Figure 16. As evident, approximately one half of all key informants (51%) stated that they did not know whether or not such differences existed, close to one-third (31%) reported an awareness of certain differences, and less than one-quarter (18%) indicated that there were no urban/rural differences in injection drug use. The urban/rural differences specified by the respondents are listed verbatim by province in Table 14. As shown, differences were noted most commonly in terms of the overall prevalence of injection drug use. Urban/rural differences in relation to the types of drugs being used, the drugs of choice, injection settings and risk-taking behaviours were also mentioned, albeit less frequently.

It should be noted that the most commonly identified urban/rural difference among key interview participants was also related to the relatively greater incidence of injection drug use in urban areas. Although acknowledging that many drugs are available to IDUs in rural communities, several key informants highlighted the greater level of secrecy and effort involved in accessing them. For instance, while most drugs used for injection can be easily obtained on city streets, rural IDUs must generally know a dealer and be personally integrated into the injection drug-using community.

Another commonly mentioned theme by the interviewees was related to the overall mobility and migration patterns of Atlantic Canada's IDUs. That is, several participants noted that a substantial proportion of IDUs in their communities had lived "out west" (i.e. Quebec, Ontario, British Columbia) at some point while using. While some Atlantic Canadians begin their injection drug use in larger centres, it is also relatively common for them to begin injecting here, and subsequently migrate to more "drug friendly" centres (e.g. Vancouver's East Side).

3.4.6 Regional and Provincial "Hotspots." Although the exact numbers of IDUs across the Atlantic region cannot be determined, the reported number of Hepatitis C cases can provide some insight. The estimated number of IDUs in each province, based on the reported number of HCV cases and the percentage of cases attributable to injection drug use, are provided in Table 15. As shown, minimum estimates ranged from 121 (PE) to 1200 (NS). However, it has been estimated that more than two thirds of HCV-infected individuals remain undiagnosed and unreported, and that as few as 30% of those infected with HCV have actually been diagnosed (Ploem, 2000). As such, it may be that the actual numbers of IDUs in each province are closer to the maximum estimates, which account for the discrepancy between the reported and estimated number of HCV cases. Based on this discrepancy, Nova Scotia (4000) and New Brunswick (1430) have the greatest number of IDUs, followed by Newfoundland (537) and Prince Edward Island (403).

Figure 16

Urban/Rural Differences in IDU

Table 14. Open-ended Responses: Urban/Rural Differences in IDU Activity

New Brunswick

- *Cocaine still #1 choice.*
- *Heroin is more common in larger centres.*
- *More common in urban areas.*
- *I believe less IV drug use in rural areas.*
- *Cities tend to see more injection drug use➡ result of larger population. Smaller communities will see specific drugs increase from time to time based upon the "dealer."*
- *Urban settings (Moncton) are beginning to see some injection use of heroin. However, most abuse is still in oral formulations, especially in rural settings.*

Nova Scotia

- *Rural settings don't seem to have females working as prostitutes to support habit.*
- *Pictou County - Dilaudid use in youth is increasing*
- *Perhaps more sharing due to "small town" attitude. Extreme secrecy in rural areas.*
- *In cities the drug of choice is different (e.g. cocaine/heroin vs. Dilaudid in on-reserve communities).*
- *The use is more prevalent in the urban areas.*
- *Rural IDUs tend to inject in house settings (they inject opiates and drink).*
- *Different ways of accessing the drug. Different communications network. Different drugs. In Halifax, can easily get drugs on street. In small communities (even Sydney), have to be integrated and know someone in community.*
- *Urban users are more likely to use crack cocaine.*
- *Feel rural areas need more access to needle exchanges and education re. vaccinations.*
- *Less use in rural areas. More use in cities compared to smaller towns.*

Prince Edward Island

- *City injection drug use higher.*
- *Cities lead in all categories as users move to the city for variety and availability.*

Newfoundland

- *More people, more injection drug use.*
- *It is mostly urban dwellers who present for detox.*
- *More available in urban areas.*
- *Most IDUs have lived on the mainland (i.e. Toronto, BC) at some point in their lives; many were introduced to IDU at this time.*

Table 15. Estimated Number of Injection Drug Users Based on HCV Epidemiological Data

	# HCV Cases	% IDU Risk Factor*	Minimum Estimate	Maximum Estimate**
NB	1053	40.7%	429	1430
NS	2197	54.6%	1200	4000
PE	240	50.5%	121	403
NF	321	50.0%	161	537

* *% IDU calculated on the number of cases for which risk factor data are available (i.e. NS=1171; NB=1053; PE=196; NF=150)*

** *Maximum estimates calculated on the premise that only 30% of HCV cases have been diagnosed and reported.*

The compilation of the key informant questionnaire and interview data related to demographic characteristics and trends yielded insight into the various "hotspots" of IDU activity within each Atlantic Province. While the exact numbers of IDUs in each community are impossible to determine, key informants' perceptions and estimates of the prevalence of injection drug use in their communities indicate several regional and provincial "hotspots." From a regional perspective, key informants agree that Nova Scotia and New Brunswick have the greatest number of IDUs. However, each province also appears to have its own relative "hotspots." These are indicated in Figures 17 and 18 below.

Table 16 presents key informants' estimates of the number of IDUs in the various communities. It should be recognized that what is considered a "hotspot" provincially may not necessarily be deemed a regional "hotspot." Data obtained from correctional facility personnel also highlight the prevalence of injection drug use in the various federal and provincial prisons across the region.

New Brunswick, Prince Edward Island and Newfoundland participants perceived their provinces' larger centres as the main areas of injection drug use activity. That is, Saint John, Fredericton and Moncton were identified as New Brunswick's "hotspots," while Charlottetown and Summerside were deemed as the "hotspots" by the Prince Edward Island respondents. Although underscoring the lack of prevalence studies, many of Newfoundland's key informants perceived the use of injection drugs in their province as less common than that in either the other Atlantic Provinces or other regions of the country. Most pointed to alcohol, cannabis and the oral ingestion of opiates as being the more prevalent forms of drug use. While no IDU "hotspot" was identified in Newfoundland, St. John's was perceived among the Newfoundland respondents to have the greatest number of IDUs.

A number of "hotspots" across Nova Scotia were identified. While the Central Region (Halifax-Dartmouth) appears to have the greatest number of IDUs, key informants also emphasized the prevalence of injection drug use in the province's northern (particularly the counties of Cumberland and Pictou) and eastern (Cape Breton) regions. In contrast to the other three Atlantic Provinces, key informants identified a number of smaller and more rural communities as IDU "hotspots." In the northern region, for instance, injection drug use is perceived as particularly common in Amherst, New Glasgow, Stellarton, Pictou and Trenton. This region also houses a federal (Springhill Institution) and provincial prison, which are both perceived as "hotspots." In terms of the eastern region, key informants stressed the prevalence of injection drug use in Cape Breton's largest city (Sydney), as well as in several outlying and more rural communities (i.e. North Sydney, Sydney Mines, Glace Bay, New Waterford and Louisbourg).

The issue of injection drug use in Cape Breton became very apparent with a Hepatitis B outbreak in the early 1990s. Since then, various IDU-related services (i.e. needle exchange program, Hepatitis C Society Chapter, AIDS service organization) have come into existence. As will be discussed in Section 3.6, previous research has also corroborated the prevalence of injection drug use and related communicable diseases in this region (i.e. *The Eastern Region Project: Seroprevalence of HIV, Hepatitis B and Hepatitis C Viruses and High Risk Behaviours Among IDU and Sexual Partners of IDU* (Lior and Stratton, 1998)).

Figure 17. New Brunswick, Nova Scotia and Prince Edward Island "Hotspots"

Figure 18. Newfoundland "Hotspots"

*St. John's

Table 16. Estimated Number of IDUs Across Provincial "Hotspot" Communities	
Location	**Key Informant Estimates of the # of IDUs**
New Brunswick	**500–2000** [a]
• Saint John	100–500
• Fredericton	100-300
• Moncton (including Dorchester Penitentiary)	300
• Dorchester Penitentiary	150--200
Nova Scotia	**800-2500** [a]
• Halifax-Dartmouth	500

• Northern Region
  • Cumberland County (i.e. including Springhill Institution and provincial prison)
  • Pictou County
	
	500
	
	100

• Cape Breton	200
• Springhill Institution	100–200
Prince Edward Island	**200–1000** [ab]
Newfoundland	**> 200** [ac]
a Provincial estimates are based on key informants who provided estimates for the entire province. *b Estimates were only provided for the entire province. Follow-up calls revealed that key informants perceive Charlottetown and Summerside as the areas of greatest IDU activity.* *c Only one key informant from Newfoundland provided an estimate.*	

3.5 Injection and Sexual Risk Activities

3.5.1 Overview. The present section provides the key informant questionnaire and interview data pertaining to some of the potential risk activities of IDUs in the Atlantic Provinces. Questionnaire participants were asked to estimate — on a 5-point scale ranging from 0% (None) to 100% (All) — the prevalence of various unsafe injection and sexual behaviours among the IDUs in their communities. The scale consisted of 25%-point increments, and participants were provided with a "No Idea" option to discourage outright guessing. An open-ended item asked participants to elaborate on any additional information they wanted to share in regards to the prevalence of injection drug use. Rather than focussing primarily on the prevalence of unsafe needle or sexual activities, the key informant interviews focussed more generally on IDUs' reaction to safer injection/sex messages.

3.5.2 Unsafe Needle Use. Figure 19 summarizes respondents' prevalence estimates of the various unsafe needle use behaviours among IDUs in their communities. As shown, mean ratings ranged from a low of 2.6 ("share dirty needles") to a high of 3.6 ("booting"). Given the 5-point scale, these ratings indicate that, on average, key respondents estimated the prevalence of sharing dirty needles at between 25% and 50% of IDUs in their communities, and the prevalence of "booting" at between 50% and 75%. "Booting" involves the drawing of blood back into the syringe and re-injecting one or more times. Estimates for the other unsafe needle use practices approximated 50% (i.e. mean ratings of 2.9 to 3.1). These figures indicate that, on average, key informants contend that almost one half of their community's IDUs are sharing injection

equipment such as spoons, filters and water; "front or backloading"; sharing dirty needles; and sharing needles cleaned with bleach. Front or backloading involves transferring part of the drug solution from one syringe to another by, for example, removing the plunger or needle of a second user's syringe.

Table 17 provides additional information pertaining to the estimated proportion of IDUs engaging in the various injection risk activities by including the percentage of key informants who estimated prevalence rates to be at least 50% (i.e. ratings of 3, 4 or 5 on the 5-point scale). As shown, the majority of respondents reported that a minimum of one half of IDUs in their communities did not always use their own clean needles; were sharing needles cleaned with bleach; were sharing equipment such as spoons, filters, and water; were "front/back loading"; and were "booting" (59%–71%).

Previous studies have reported that practices such as "booting" and "backloading" may also increase the risk of HIV transmission, but that the full extent of such risk behaviours among Canadian IDUs is still under investigation (Laboratory Centre for Disease Control, 1999). Based on the results of the current study, "booting" is particularly common. As explained by one key informant, booting is the standard practice and serves as an indicator of a drug's purity. Front/backloading occurs most commonly when a syringe contains blood clots. Sharing most likely occurs when an addict is desperate for their drug.

> *Booting, also called "flagging," is the standard practice. It lets you make sure you're in the vein; it serves as a safety mechanism. You get a sense of the purity/high of the drug. If too much, will pull out. If not enough, will continue injecting. When bloodclots in syringe, will front or backload. If really in bad shape, may lead to sharing.*

Figure 19

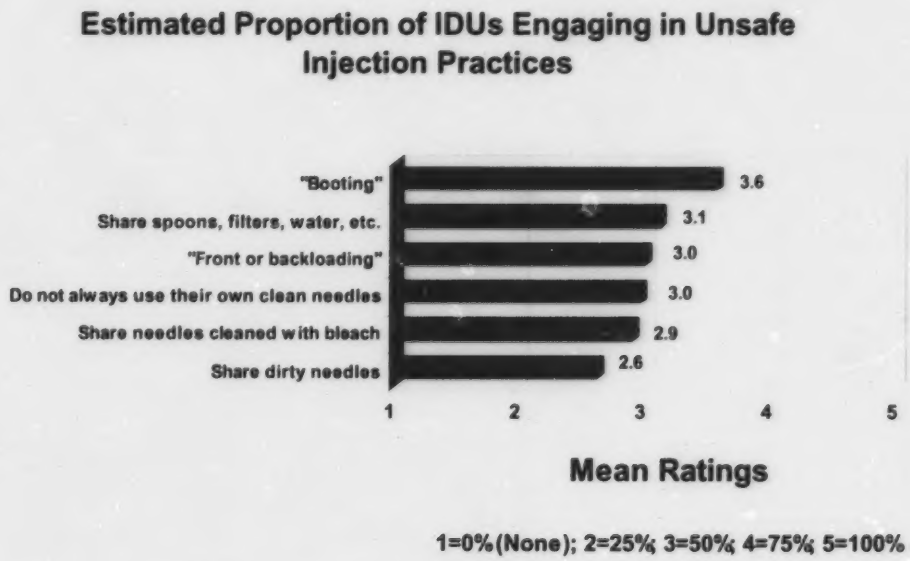


Table 17. Estimated Proportion of IDUs Engaging in Injection and Sexual Risk Activities		
	Mean Ratings	**% Estimating Prevalence of at Least 50%**
Needle Use Practices		
• **Share Dirty Needles**	2.6	46.9%
• **Share Needles Cleaned with Bleach**	2.9	60.0%
• **Do Not Always Use Their Own Clean Needles**	3	59.3%
• **"Front or Backloading"**	3	68.0%
• **Share Spoons, Filters, Water, etc.**	3.1	60.0%
• **"Booting"**	3.6	71.4%
Sexual Practices		
• **Involved in the Sex Trade**	3.3	23.1%*
• **Unsafe Sex with Sex Trade Clients**	3.9	52.4%
• **Unsafe Sex with Casual Sexual Partners**	4.2	77.1%
• **Unsafe Sex with Regular Sexual Partners**	4.7	90.9%
**** However, more than two thirds (69%) of all respondents estimated that approx. 25% of IDUs in their communities were involved in the sex trade.***		

3.5.3 Unsafe Sexual Activities. Figure 20 depicts prevalence estimates of various potential unsafe sexual activities, including unsafe sex with regular partners, casual partners and sex trade clients, as well as involvement in the sex trade. Means ranged from a low of 3.3 ("involved in the sex trade") to a high of 4.7 ("unsafe sex with regular sex partners"), indicating that the majority of Atlantic Canada's IDUs are perceived to be participating in a variety of unsafe activities, the most common being unsafe sex with regular partners (75%–100%). Although slightly lower, the estimated prevalence of unsafe sex with casual sexual partners and sex trade clients averaged roughly 75%. On average, key informants indicated that approximately one half of all IDUs in their communities were involved in the sex trade. However, more than two thirds (69%) of all respondents estimated that one quarter of their community's IDUs were involved in the sex trade.

Table 17 underscores the prevalence of unsafe sex with regular and casual sexual partners among IDUs, and points to the incidence of unsafe sex among some within the sex trade. Additional insight into the prevalence of unsafe needle and sexual practices is provided in participants' open-ended comments pertaining to risk activities (Table 18). As shown, the majority of respondents took the opportunity to (1) clarify some of the factors related to risk taking; (2) comment on the lack of available information on unsafe sexual and injection behaviours; or (3) stress the need for enhanced harm reduction efforts.

Figure 20

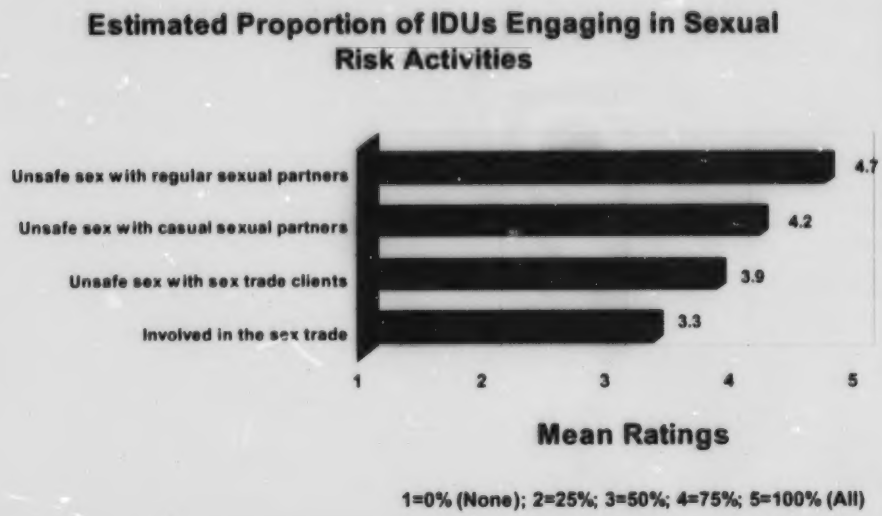


Table 18. Additional Comments Regarding Unsafe Injection or Sexual Behaviours (n = 21)

Clarification on Factors Related to Risk Behaviours

- *Some trade sex for coke (coke whores).* (Moncton, NB)
- *For the most part IDUs "live for the moment". Little or no thought is given to planning the needle or sexual encounters.* (Dorchester Penitentiary, Dorchester, NB)
- *IV drug users and sex trade workers will use clean needles and engage in safe sex if they have access to materials. However they are reluctant to go to organizations because of the stigma and embarrassment.* (Saint John, NB)
- *Reports from youth doing injection drugs is that they don't share needles but are still sharing cookers.* (Fredericton, NB)
- *Booting, also called "flagging.", is the standard practice. It lets you make sure you're in the vein; it serves as a safety mechanism. You get a sense of the purity/high of the drug. If too much, will pull out. If not enough, will continue injecting.* (Sydney, NS)
- *Difficult for me to generalize because 1/3 of my IDU community is federal prison and provincial jail. I would say that at least 75% practise unsafe sex and needle use especially when alcohol is involved. In rural areas, alcohol plays a major role.* (Amherst, NS)
- *Prostitutes who are looking for a high may not consider safe sex practices. They just want the money for the next high. Johns do not care or think.* (Halifax, NS)
- *When you are high, you make do with what you have. You don't want to go out to get them [needles].* (Halifax, NS)

Lack of Related Information

- *As you can see, we have no profiles re. IDUs in our community.* (Moncton, NB)
- *I don't believe many of the questions on your questionnaire have ever been researched before. Therefore it is difficult to adequately complete your questionnaire.* (Halifax, NS)
- *It is difficult to capture a "picture" of the community as not all IDUs come for service to our agency.* (St. John's, NF)
- *There have been no prevalence statistics done. Since 1984, of people tested for HIV/AIDS, only 7 indicated IDU as possible source of infection. The local AIDS committee distributed 300 needles in 1998.* (St. John's, NF)
- *There is no way of knowing these percentages without doing a survey/study. The drug users I see are mixed in with other clients and not dealt with in separate clinics.* (St. John's, NF)

Need for Enhanced Harm Reduction Efforts

- *It [risk taking] is probably substantially higher than we suspect.* (Fredericton, NB)
- *This is a very hard community to reach with a harm reduction message.* (Saint John, NB)
- *It [reducing unsafe practices] is not a priority in any of the services that claim to service this population. Harm reduction must be embraced by not only persons using injection drugs but the larger community as well.* (Sydney, NS)
- *Need more awareness programs to help prevent injection drug use. Also need a needle exchange program for IDUs on PEI.* (O'Leary, PE)

Miscellaneous

- *I am unaware of the sexual consequences ... will have broader-base knowledge when program expands. According to our admission info, most of our clients state that they do not share needles. The few that admit to sharing tend to also be sharing Hep C. In the near future, we are looking into branching out into needle exchange programs, harm reduction education, methadone, etc.* (Miramichi, NB)
- *We were not aware of IDU in our [Aboriginal] communities, but we are being told of the situation/issues related to IDU.* (Halifax, NS)
- *Syringes are readily available at hospitals and drug stores, and a lot take advantage of that fact. Sex appears to be all amongst themselves.* (Summerside, PE)

3.5.4 Responses to Safer Sex and Safer Needle Use Messages. Valuable insight into the effectiveness of current safer sex and safer needle use messages targeted to IDUs was gained throughout the key informant interviews. The main findings can be summarized under the following eight themes:

- Building/gaining the trust of IDUs in a one-on-one environment is key to effectively delivering messages.
- Messages have the most credibility and impact when they come from peers or "natural helpers" (i.e. ex-users).
- IDUs are generally more receptive and knowledgeable about safer needle use messages than those relating to safer sex, and are more likely to use safer needle practices than safer sex.
- The sharing of spoons and filters for injecting drugs is much more common than the sharing of needles, and appears to be the most prevalent unsafe injection activity. While "booting" is standard, its implications on disease transmission are less clear.
- Many IDUs are afraid to access clean needles. While many needle exchange clients are generally receptive to safer needle message, most needle exchange sites are only reaching the "tip of the iceberg" (i.e. a very small proportion of their community's IDUs).
- Messages are generally least effective when delivered when a user is very high.
- In the prison environment, safer injection messages are easier to convey than those relating to safer sex, as very few inmates will acknowledge same sex experiences.
- As with youth in general, many young IDUs (including inmates) have a sense of invincibility and are more likely than their older counterparts to ignore harm reduction messages.

Several of the above themes were adeptly captured in a statement made by an ex-user:

> *How users react depends on how the message is presented. It has to be a non-judgemental, straight-up, "cut the crap" approach. The "natural helper" approach is the way to go. Messages from a government agency are less trusted. One-on-one education is important (e.g. "You can't hold a focus group with IDUs or provide a group education session"). Messages are generally not as important when people are high.*

3.5.5 Other Health-related Risks. While not specifically provided in the written survey, the opportunity to comment on any health-related risks faced by IDUs was provided during the key informant interviews. Given that both the written questionnaire and interview guide had addressed HIV/AIDS and Hepatitis (B and C), respondents were asked to focus on other potential health risks. As listed in Table 19, a multitude of additional physical and psychosocial health-related risks were specified by the key informants. It should be noted that, while abscesses were mentioned by the majority of respondents, items included in the table are not arranged in any order of frequency or priority.

Table 19. Listing of Other Potential Health-related Issues and Complications

Physical	Psychosocial
• Abscesses (particularly with MSContin) • Cellulitis • Cysts • Death • Endocarditis • General immunosuppression (e.g. inability to fight infections) • Liver disease • Malnutrition • Memory loss • Other localized infections due to poor vein care • Overdoses • Phlebitis • Sexually transmitted diseases • Sleep disorders • Tuberculosis • Withdrawal complications	• Crime • Homelessness • Incarceration • Mental health problems (e.g. depression, anxiety) • Poverty • Sexual abuse/assault • Social and economic marginalization • Suicide • Violence

3.6 Communicable Disease Testing and Prevalence

3.6.1 Overview. As discussed earlier, one of the present study's four main research questions was *What do we know about the prevalence of HIV, Hepatitis B, Hepatitis C, and other communicable disease among the region's injection drug users?* The data pertaining to this question stem from several sources: *(1) Provincial Epidemiological Surveys* (i.e. designed specifically to gather provincial epidemiological and

surveillance data related to the prevalence of injection drug use as a risk factor for HIV, Hepatitis B and Hepatitis C); *(2) Key Informant Questionnaires* (i.e. asking respondents to estimate the proportion of IDUs in their communities who had been tested for the various communicable diseases, and then to estimate the proportion of those having tested positive); *(3) Key Informant Interviews* (i.e. more generally asking participants to comment on the overall prevalence of communicable diseases within their communities' IDU population); and *(4) Published Research* (i.e. Atlantic Canada studies related to injection drug use and communicable disease).

3.6.2 Reported Cases. Epidemiological data on the cases of HIV/AIDS, Hepatitis B and Hepatitis C reported to the end of 1999 were obtained from each of the four provincial Departments of Health. Data relating to the proportion of cases reported to have injection drug use as a risk factor were provided for HIV/AIDS and Hepatitis C. However, the Hepatitis B surveillance and risk factor data are particularly scant and inconsistently reported across all regions (see Table 20). For instance, New Brunswick records only the cases of acute HBV, while other provinces record all cases with a positive HBV serology. In addition, Prince Edward Island does not have an HBV database; Nova Scotia's database does not include a gender breakdown for HBV; and none of the provinces has collected any related risk factor information.

As shown in Table 20, provincial surveillance reports indicate that Hepatitis C is the most prevalent of the three communicable diseases across the Atlantic region. Nova Scotia (2197) and New Brunswick (1053) report the greater number of cases, followed by Newfoundland (321) and Prince Edward Island (240). Hepatitis B and HIV/AIDS are relatively less common, although certainly existent. Reported cases of HIV/AIDS ranged from 37 (PE) to 529 (NS), with Newfoundland and New Brunswick reporting 202 and 365 cases, respectively. While the overall prevalence of HBV is unknown in New Brunswick, data from other provinces indicate that HBV is also more prevalent than HIV/AIDS (e.g. Nova Scotia has almost 1000 reports of HBV), although less so than Hepatitis C.

An examination of the HIV/AIDS and Hepatitis C reports by gender and history of injection drug use as a risk factor underscores two main patterns:

1. A significant gender difference in the reported number of cases of HIV/AIDS and Hepatitis C.

   That is, males comprise the majority of all reported cases: ranging from 77% (NF) to 90% (NB) for HIV/AIDS; and from 64% (NS) to 75% (NB) for HCV.

2. Injection drug use is proportionally a much greater risk factor in terms of the reported cases of Hepatitis C than of HIV/AIDS.

   In Newfoundland and New Brunswick, for instance, a history of injection drug use was identified for approximately 4% and 15% of HIV/AIDS cases, respectively. In contrast, injection drug use was identified as a risk factor in 50% and 41% of all Hepatitis C reports in Newfoundland and New Brunswick.

Table 20. HIV/AIDS, HCV and HBV Epidemiological Information

	NB[a]		NS		PE		NF	
	# Cases	% Total	# Cases	% Total	# Cases	% Total	# Cases	% Total
1. HIV/AIDS Cases to Date[b]								
Male	327	89.6%	468	88.5%	na[d]	na	155	76.7 %
Female	38	10.4%	61	11.5%	na	na	47	23.3%
Unspecified	--	--	--	--	na	na	—	--
Total HIV/AIDS Cases	365	100.0%	529[c]	100.0%	37	100.0%	202	100.0%
IDU as Risk Factor	53	14.5%	67[c]	12.6%	1	2.7%	8	4.1%
2. HCV Cases to Date[e]								
Male	787	74.7%	1397	63.6%	157	65.4%	227	70.7%
Female	261	24.8%	799	36.4%	83	34.6%	94	29.3%
Unspecified	5	0.5%	1	<1.0%	--	--	--	--
Total HCV Cases	1053	100.0%	2197	100.0%	240	100.0%	321	100.0%
IDU as Risk Factor[f]	429	40.7%	639	54.6%	105	53.6%	75	50.0%
3. HBV Cases to Date[g]								
Male	55	63.2%	na	na	na	na	164	58.0%
Female	32	36.8%	na	na	na	na	119	42.0%
Unspecified	--	--	977	100.0%	na	na	—	--
Total HBV Cases	87[h]	100.0%	977	100.0%	na	na	283	100.0%
IDU as Risk Factor	**Not Available in any Provincial Databases**							

a All 1999 New Brunswick data are provisional.

b HIV/AIDS reporting period: NB (1985–1999); NS (1983–1999); PE (1985–1999); NF (1984–1999).

c Nova Scotia's data are based on the total number of HIV cases reported from 1983–1997 in the Surveillance Report: HIV, AIDS in Nova Scotia *(Nova Scotia Department of Health, 1998) plus the number of HIV cases reported for 1998 and 1999.*

d Not available.

e HCV reporting period: NB (1989–1999); NS (1990–1999); PE (1990–1999); NF (1984–1999).

f Percentages are based on the number of cases for which risk factor data are available (i.e. NS=1171; NB=429; PE= 196; and NF=150).

g HBV reporting period: NB (1994–1999); NS (1985–1999); PE (na); NF (1996–1999).

h Only cases of acute Hepatitis B are reported.

3.6.3 Prevalence Estimates of Testing and Infection Rates. The provincial epidemiological data presented above are likely underestimates of the actual prevalence of these communicable diseases in Atlantic Canada. Representing only the number of cases diagnosed and reported, they include neither the people who are infected but have not been tested, nor those who have been tested but whose results have not been reported to the provincial health departments. Additional insight into the prevalence of HIV, HBV and HCV testing, as well as disease prevalence, among Atlantic Canada's IDUs was obtained through key informant questionnaires and interviews.

Table 21 provides the quantitative results of the questionnaire item asking participants to estimate the proportion of IDUs within their communities having been tested for each of the three communicable diseases. Again, a 5-point scale ranging from 1 (0% or None) to 5 (100% – All) consisting of 25%-point increments was used. Mean ratings, as well as the percentages of key informants who estimated the prevalence of testing among all IDUs in their communities at one-quarter or less, and at one-half or less are presented below.

Table 21: Estimated Proportion of IDUs Tested for HIV, Hepatitis B and Hepatitis C

	Mean Ratings	% Estimating Prevalence of ¼ or Less	% Estimating Prevalence of ½ or Less
• **HIV?**	2.6	57.1%	85.7%
• **Hepatitis B**	2.7	50.0%	82.1%
• **Hepatitis C**	2.8	43.3%	80.0%

As shown, mean ratings varied very little, ranging from 2.6 (HIV) to 2.8 (HCV). These figures indicate that, on average, key informants estimated that more than one quarter but less than one half of all IDUS in their communities had been tested for these communicable diseases. The percentage data in the last two columns suggest that the majority of IDUs across the region have not actually been tested. That is, while it is estimated that slightly more IDUs have been tested for Hepatitis C than for either HIV or Hepatitis B, the vast majority (80%) of key informants contend that the proportion of those tested does not exceed 50%.

Participants were also asked to estimate the percentages of IDUs within their communities who had tested positive for HIV, HBV and HCV. The vast majority of respondents indicated that they did not know (i.e. 73%, 81% and 85% for HCV, HIV and HBV respectively). Among the minority of individuals who provided an estimation, percentages ranged from 1% to 50% for HIV and HBV, and from 15% to 90% for HCV. Given the diversity of communities to which participants were referring, the wide discrepancy in estimates, and the fact that so few individuals actually responded to the question, these data provide little insight and must be interpreted with extreme caution.

The most valuable information regarding the prevalence of the various communicable diseases among the Atlantic region's IDUs was gained through published research reports and the more detailed key informant interviews. The main themes in relation to the prevalence of testing, as well as to the rates of infection, are summarized below.

1. Hepatitis C is extremely prevalent among Atlantic Canada's IDUs. For instance:
   - Mainline Needle Exchange estimates that 85% to 90% of its clients are infected with HCV.
   - A key informant from Cape Breton contends that 80% to 90% of all IDUs tested have HCV.
   - A physician from Halifax's North End Community Clinic estimates that approximately 50% of IDUs in his practice have tested positive for HCV.
   - All of the clients currently accessing one of New Brunswick's needle exchange programs are thought to have Hepatitis C.
2. Hepatitis C is the most prevalent communicable disease among the region's IDUs.

- Key informants are generally less likely to provide prevalence estimates for HIV or Hepatitis B among IDUs than they are for Hepatitis C. However, they do indicate that the rates are substantially lower than those for Hepatitis C.

- While HIV is less common than Hepatitis C, several key informants noted that since many IDUs have a hard time disclosing their HIV status, the true extent of HIV infection is more difficult to gauge. As stated by one respondent, *"Everybody has Hep C... talking about it is no big deal."*

- Hepatitis B is likely less prevalent than Hepatitis C among the region's IDUs since many IDUs in the region are offered vaccinations against Hepatitis A and B, and are therefore immunized.

- In general, more IDUs are being tested for Hepatitis C than for Hepatitis B or HIV. A nurse with the Correctional Service of Canada, for instance, estimated that 90% of all the requests she receives for testing are for Hepatitis C.

- Regional seroprevalence studies corroborate the prevalence of various communicable diseases, and underscore how common Hepatitis C is among IDUs.

  - *The Eastern Region Project*, for instance, was conducted in 1996–97 in Cape Breton by the Nova Scotia Department of Health in partnership with Health Canada's Laboratory Centre for Disease Control (Lior & Stratton, 1998). One of the study's main objectives was to estimate the seroprevalence of HIV, HBV and HCV among IDU and non-IDUs who had sex with IDUs.

    A total of 92 IDUs and 80 non-IDU sexual partners took part in the research. Seroprevalence rates of 5%, 23% and 47% were found among IDUs for HIV, HBV and HCV, respectively. Rates among non-IDU sexual partners were substantially lower (1% for HIV and HCV; 5% for HBV).

- Seroprevalence data on the rates of various communicable diseases among federal inmates in the Atlantic region highlight the prevalence of infection among the prison population, and particularly among those who self-identify as IDUs. In short, the 1997 Springhill Epidemiological Study (Correctional Service of Canada, Health Canada, and Nova Scotia Department of Health, 1999) found:

  - an overall HIV prevalence of 1% (i.e. 10 times higher than that in the general population), and a prevalence of 2% among IDUs;
  - an overall Hepatitis B prevalence of 10.6% among all participating inmates, and 18.6% among IDUs; and
  - an overall prevalence rate of 27% for Hepatitis C. Among inmates who self-identified as IDUs, however, the prevalence was found to be 52%.

3.7 Additional Comments

A total of 25 key informants (33%) responded when asked whether they had any additional comments about any aspect of the survey. Qualitative analyses of the responses revealed four main themes, most of which corroborate the findings presented earlier: (1) Need for Additional Information/Action on Injection Drug Use (e.g. lack of prevalence information; insufficient knowledge/understanding of issues faced by IDUs); (2) Need for Related Education/Prevention (e.g. coordinated efforts to reduce incidence and educate around risks and dangers, need for strengthening helping efforts by professionals and "natural helpers," need for widespread media education and related school curricula); (3) Need for Improved Treatment (e.g. methadone) and Counselling (e.g. need for methadone treatment and programs incorporating counselling); and (4) Demographic/Risk Behaviour Information (e.g. IDUs migrating back from larger centres; the role of alcohol in IDU initiation; the impact of urinalysis testing on rates of IDU within federal prisons). Issues that arose only once and could not be categorized under one of the above themes were collapsed under the "Miscellaneous" heading. This section concludes with a listing of the respondents' final comments under each of the respective themes (Table 22).

Table 22. Additional Comments (n = 25)

Need for Additional Information/Action on Injection Drug Use

- *Glad to see this work being done. While our community workers acknowledge that the issues around injection drug use need to be addressed, we have very little background info. We also recognize the need to involve the IDU population but need assistance and guidance in that area. Before we can say "let's implement" a Needle Exchange Program or Harm Reduction Program, we have a long ways to go. The results of this research will provide needed insight.* (SIDA AIDS Moncton, Moncton, NB)
- *I don't find that we have a lot of information on what is happening with IDUs in the Moncton area.* (Public Health Services, Moncton, NB)
- *Everyone who has a positive test for Hep C or HIV is interviewed (very few refuse to talk with us) by a Public Health Nurse. Many indicate that they were IDUs at one time and in other areas. Few acknowledge that they are currently using (although from reading the local news, there is evidence that drug use continues). I have no idea how many IDUs there are in Region 2. Some we know are rather transient.* (Public Health Services, Saint John, NB)
- *Difficult to estimate if the denominator is unknown.* (Public Health Services, Dartmouth, NS)
- *There are no needle exchange programs locally. Who has all this info in my area, I don't know. Where to start to gather the information and offer education may be something I can gather from the research.* (Public Health Services, Yarmouth, NS)
- *I agree that much more assistance and understanding is needed for IDU.* (Springhill Institution, Springhill, NS)
- *I would be interested in a committee being struck that looks at issues PUID (person who use injection drugs) face.* (Sharp Advice Needle Exchange, Sydney, NS)
- *From my knowledge, IDUs are not common in this area. Most persons use alcohol or some form of cannabis-marijuana, hashish, hashish oil. Cannot be sure, however, that there are no IDUs in this region. None reported by clients or others in community.* (Addiction Services, St. Anthony, NF)
- *I have nothing else to add really. Injection drug use and its implications is an emergent issue in this region. We have completed no prevalence studies in the IDU area. We don't know the extent of the problem for sure. Any usage must be a concern but incidence (anecdotal) would not indicate a statistical problem demanding immediate attention. But studies need to be done to confirm this and to plan for rational prevention, early intervention programming.* (Health & Community Services, Provincial Addictions Consultant, Saint John's, NF)

Need for Related Education/Prevention

- *I hope that this survey will help pull together partners to make a coordinated effort to reduce IDU incidence, educate all ages re. risks and dangers, increase coping skills in at-risk persons and strengthen helping efforts by professionals & "natural helpers." Educating those of us involved in addressing IDU needs would be a great help.* (Public Health Services, Fredericton, NB)
- *Need regular media blips – radio, TV, cable TV organized by Health Canada. Need work with provincial Department of Education to have prevention resources added to school curriculum.* (Public Health Services, Miramichi, NB)
- *Education is the largest weapon we have to combat this problem. When a drug dealer is takendown, another one will pop up. It would be a dream come true to be able to remove the market ... to have the dealers put out of businessdue to the lack of demand.* (Summerside Police Services, Summerside, PE)

Need for Improved Treatment (e.g. methadone)

- *The problems of narcotic abuse in my community (including prison and general population) is overwhelmingly of oral medications (i.e. prescription drugs: morphine, Dilaudid and Percocet) There is no treatment available for these people (i.e. methadone programs)* (Westmorland Institution, Dorchester, NB)
- *The detox centre in Moncton compiles regular statistics which could be of interest to you. There are about 10 to 20 methadone users in the Moncton area. There is no counselling to go along with methadone. Users are reporting getting the methadone to save money to get more cocaine.* (Medical Doctor, Moncton, NB)

Demographic/Risk Behaviour Information

- *In our "community", the drug users using injection drugs are a "minute" percentage and are usually people who are returning from larger cities or towns or a penitentiary.* (RCMP Drug Section, Bathurst, NB)
- *I took the liberty of asking a few users to fill out the last page. Hope it helps. Booting/flagging is standard. When blood clots in syringe, will front or backload. If really in bad shape, may lead to sharing.* (Cape Breton Chapter of the HeCSC)
- *No mention of role of alcohol in IDU, especially for first time users. Most report being "drunk" first time. Also, federal inmates report using injectable drugs to beat urine testing when would otherwise probably use cannabis. More space would have been nice.* (Public Health Services, Amherst, NS)

Miscellaneous

- *Please call me or email...there is more info that I could explain that may help you. Thank you.* (Street Outreach Worker, Saint John, NB)
- *Most of my knowledge comes from working on the street with heroin users and also investigations I have done on double doctoring.* (RCMP Drug Awareness, Charlottetown, PE)
- *The JHS would like some literature we could photocopy regarding personal care post-diagnosis of Hepatitis C.* (John Howard Society of Nova Scotia, Halifax, NS)
- *It is difficult to give answers to these questions as my area of work is testing and counselling for STDs. I see drug users among the clients and deal with them one-on-one but not as a group. Therefore I cannot generalize and any percentages I give, etc. would be guesswork. If I can be of any help, other than this questionnaire, please call me.* (Health and Community Services, St. John's, NF)
- *Currently, there is very little heroin in Halifax. It came into the city for a while last year, but the quality was poor. With opiates like Dilaudid, you know what you're getting; you know you're going to get off.* (Mainline Needle Exchange, Halifax, NS)

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5.0 APPENDICES

A. Key Informant Questionnaire and Cover Letter

B. Provincial Epidemiological Survey

C. Key Informant Interview Guide

D. List of Key Informants

E. Listing of Related Research and Documentation

APPENDIX A: Cover Letter

March 29, 2000

Dear Respondent,

The spread of HIV/AIDS and other infections such as Hepatitis C among drug users in Canada requires serious and immediate attention. Although we know that many injection drug users in Atlantic Canada are engaging in risk-related behaviours, a compilation of the available information is needed to gain a greater understanding of the problem. Most of the Canadian studies on injection drug use have been conducted in larger cities west of the Atlantic Provinces. While useful research in the area of injection drug use and related risks has been conducted in the Atlantic region, this work has mainly focussed on specific regions of Nova Scotia, and relatively little is known about injection drug users in other Atlantic Provinces.

Attached you will find the *Profile of Injection Drug Use in Atlantic Canada*. This questionnaire has been sent to more than 130 individuals and organizations across the four Atlantic Provinces, including needle exchange programs, street outreach programs, methadone service providers, AIDS service organizations, chapters of the Hepatitis C Society of Canada, Narcotics Anonymous, federal and provincial correctional services, law enforcement officials, and provincial health departments (i.e. Public Health and Addiction Services). This research is being funded by the Health Promotion and Programs Branch (HPPB) Atlantic regional office of Health Canada.

Your participation is crucial to the success of this project, and we really hope that you can take the time to contribute to the profile. This information can be helpful in terms of program planning around harm reduction, HIV prevention, Hepatitis B and C prevention, as well as the prevention of other harms associated with injection drug use. If you feel that another person in your organization is more appropriate for filling out the profile, please feel free to forward a copy to them.

The questionnaire is available in both French and English. If you have any questions at all about the research or would like additional copies of the questionnaire, please contact Caroline Ploem by phone fax at (506) 455-9862 or e-mail cploem@nbnet.nb.ca. Please return all questionnaires in the envelope provided by **April 17, 2000.**

Given your experience and expertise in the area of injection drug use, I would appreciate the opportunity to further discuss some of these issues with you. I will be contacting you within the next week or two to determine your interest and availability.

Thank you for your time and consideration.

Sincerely,

Caroline Ploem
Research Consultant

APPENDIX A: Key Informant Questionnaire

Section A: Background Information

This section is meant to gather basic information about where you work and the type of work that you do to give us a sense of who responded to this survey.

Q-1 **(a) Your name:** _____

(b) Your title: _____

(c) Organization/Department: _____

(d) Address: _____

_____

_____

_____

(e) Tel #: _____

(f) Fax #: _____

(g) Email: _____

Q-2 **What is your occupation/role related to injection drug use (IDU)?**

(check all that apply)

- ❑ Nurse
- ❑ Physician
- ❑ Social Worker/Counsellor
- ❑ Addictions Counsellor
- ❑ Street Outreach Worker
- ❑ Harm Reduction Committee (e.g. Methadone, Needle Exchange) Member
- ❑ Program Director/Manager
- ❑ Police Officer
- ❑ Other (specify):_____

Q-3 **(a) What is the main focus of your work or involvement related to injection drug use?**

(check all that apply)

- ❑ Needle exchange program
- ❑ Street outreach program
- ❑ Harm reduction education for IDUs (e.g. safe injection, vein care)
- ❑ Methadone maintenance Treatment
- ❑ Prevention of communicable diseases (e.g. HIV, Hepatitis C)
- ❑ Care and support for HIV or Hep C positive IDUs
- ❑ Residential addiction treatment detoxification
- ❑ Out-patient addictions treatment
- ❑ HIV/Hep C testing program
- ❑ Drug treatment education (in a correctional facility)
- ❑ Self-help group for addictions
- ❑ General drug awareness education (e.g. schools, youth groups)
- ❑ Law enforcement
- ❑ Research on injection drug use
- ❑ Other (specify):_____

(b) How long have you been involved in work related to injection drug use (IDU)? ☞ _____ ***(# of years)***

(c) In total, with approximately how many injection drug users have you ever personally worked? ☞ _____ ***(# IDU's)***

(d) Please describe the type of IDU work in which you are involved:

_____

_____

_____

Q-4 In what type of setting does your involvement in IDU work take place? ***(check all that apply)***

- ❑ Community-based (specify):
  - ○ Needle Exchange ○ Street Outreach Program
  - ○ HIV/AIDS Organization ○ Hepatitis C Organization
- ❑ Communicable Disease Testing Site
- ❑ Correctional Facility
- ❑ Government Office (specify):
  - ○ Public Health ○ Addiction/Drug Dependency
  - ○ Correctional Services Justice/Solicitor General
  - ○ Other (specify): _____
- ❑ Self Help Meetings
- ❑ Police Department
- ❑ In-Patient Health Care Facility
  - ○ Detox/Rehab Centre
  - ○ Hospital/Health Centre (not specific to Detox/Rehab)
- ❑ Out-patient addiction treatment services
- ❑ Private Medical Practice
- ❑ Other (specify): _____

Q-5 Please indicate with which of the following subgroups of Atlantic Canadian IDUs you have knowledge/experience: ***(check all that apply)***

- ❑ General IDU population:
- ❑ Street youth
- ❑ Homeless adults
- ❑ Adult inmates
- ❑ Young offenders
- ❑ Persons in transition from prison
- ❑ Mental health clients
- ❑ Sex trade workers
- ❑ Aboriginal/First Nation communities
- ❑ Persons in detox addiction treatment
- ❑ Other (specify): _____

Section B: Information on Drug Use and Injection Activity

This section focusses on gathering a profile of injection drug users in various Atlantic Canada communities.

Q-6 Please note that for the purpose of this survey "your community" refers to the area or location with which you are familiar. ***For example: If your knowledge of injection drug use relates to your province, your province would be "your community." If your knowledge relates mainly to one town/city, that is "your community." If your knowledge relates mainly to a facility (e.g. prison), the facility would be "your community."***

(a) Please specify what you consider to be "your community": _____

(b) Please estimate the approximate population of IDUs in your community: _____ ***(# of IDUs)***

Q-7 (a) To your knowledge, which drugs are being injected in your community? ***(check all that apply)***

- ❑ **Don't Know** ☛ ***(go to Q-8)***
- ❑ Cocaine Crack
- ❑ Opiates
  - ○ Heroin ○ Morphine ○ Dilaudid ○ Methadone ○ Demerol ○ Codeine ○ Other _____
- ❑ Talwin (or other non-opiate pain killer) _____
  - ○ Used alone ○ Combined with Ritalin
- ❑ Amphetamines and Stimulants Other Than Cocaine ("Uppers")
  - ○ Dexedrine ○ Amphetamine ○ Speed ○ Ritalin ○ Other _____
- ❑ Sedatives-Hypnotics and Tranquilizers ("Downers") (specify type if possible): _____
- ❑ Hallucinogens
  - ○ LSD ○ Mescaline ○ PCP ○ DMT ○ Other _____
- ❑ Steroids
- ❑ Other drugs or combinations thereof (please specify): _____

(b) To your knowledge, what are currently the top 3 drugs of choice among the IDUs in your community? *(please select from the list in Q-7(a)above).*

❑ **Don't Know**

#1 Choice: _____ **#2 Choice:** _____ **#3 Choice:** _____

Q-8 (a) To your knowledge, in what settings are IDUs in your community injecting?

(Please check one circle for each location)	Yes	No	Don't Know
1. The street	❍	❍	❍
2. House parties	❍	❍	❍
3. Bars/pubs/clubs	❍	❍	❍
4. Shooting galleries	❍	❍	❍
5. Crack houses	❍	❍	❍
6. Correctional facilities	❍	❍	❍
7. Detox/Addiction treatment centres	❍	❍	❍
8. Public schools	❍	❍	❍
9. Community colleges/Universities	❍	❍	❍
10. Other settings (please specify):			

(b) To your knowledge, in which settings are IDUs in your community most likely to inject? *(Please choose the top 3 locations from the numbered list above).*

❑ **Don't Know**

_____ **1st Most Common Location** _____ **2nd Most Common Location** _____ **3rd Most Common Location**

Q-9 What else can you tell us about the drugs of choice or injection drug use settings in your community?

_____

_____

_____

_____

The following questions deal with various demographic characteristics of the Atlantic region's injection drug users.

Q-10 Are you aware of any differences in the injection drug use of male and female users in your community (e.g. numbers, drugs used, drugs of choice, injection settings, patterns of use)?

❑ Yes ❑ No ❑ Don't know

Please explain: _____

_____

_____

Q-11 To your knowledge, what are the 3 most common age groups of injection drug users in your community?

Please choose from: 17 yrs or less 18–24 yrs 25–34 yrs 35–44 yrs 45–54 yrs 55–64 yrs 65 or more

❑ **Don't Know**

_____ **1st Most Common Age** _____ **2nd Most Common Age** _____ **3rd Most Common Age**

Q-12 (a) Are you aware of any differences in the injection drug use activity of clients of different ages? (e.g. drugs used, drugs of choice, injection settings, patterns of use)

❑ Yes ❑ No ❑ Don't Know

Please explain: _____

_____

_____

(b) Are you aware of any trends or patterns related to the age of IDUs in your community? (e.g. Are people beginning to inject at an earlier age? A later age? Are younger/older clients more likely to share? More likely to seek help?)

❑ Yes ❑ No ❑ Don't Know

Please explain: _____

_____

_____

Q-13 (a) Do you have any experience working with injection drug users of the following ethnic/cultural backgrounds? ***(check all that apply)***

❑ Aboriginal/First Nations ❑ Asian (Chinese,Vietnamese, etc.) ❑ Middle Eastern ❑ Other (specify):

❑ Black ❑ South Asian (Indian, Pakistani) ❑ Inuit _____

❑ Caucasian/White ❑ Hispanic/Latino ❑ Métis

(b) Are you aware of any ethnic/cultural differences in the injection drug use activity of IDUs? (e.g. drugs used, drugs of choice, injection settings, patterns of use)

❑ Yes ❑ No ❑ Don't Know

Please explain: _____

_____

_____

Q-14 Are you aware of any urban/rural differences in injection drug use activity? (e.g. what is going on in cities versus small towns and villages — drugs used, drugs of choice, injection settings, patterns of use, etc.)

❑ Yes ❑ No ❑ Don't Know

Please explain: _____

_____

_____

Q-15 On average, what is the highest level of formal education completed by most of the IDUs in your community?

❑ Less than Grade 8 ❑ Less than High School ❑ High School Diploma

❑ Trade School/College Diploma ❑ University Degree ❑ Don't Know

Section C: Injection and Sexual Risk Activities

The following questions focus on some of the potential risk activities of injection drug users in the Atlantic Provinces.

Q-16 To the best of your knowledge, please indicate approximately what percentage of injection drug users in your community are engaging in the following behaviours/activities. ***(Please check the closest box. If you have no idea, check off the first box.)***

	No Idea	0% NONE	25%	50%	75%	100% ALL
a. **Share dirty needles**	❑	○	○	○	○	○
b. **Share needles cleaned with bleach**	❑	○	○	○	○	○
c. **Always use their own clean needles**	❑	○	○	○	○	○
d. **Share spoons, filters, water, etc.**	❑	○	○	○	○	○
e. **"Front or backloading/dividing/splitting"** ***(i.e. transferring part of the drug solution from one syringe to another — e.g. by removing the plunger or needle of the second person's syringe)***	❑	○	○	○	○	○
f. **"Booting"** ***(i.e. drawing of blood back into the syringe and re-injecting one or more times)***	❑	○	○	○	○	○
g. **Unsafe sex with regular sexual partners**	❑	○	○	○	○	○
h. **Unsafe sex with casual sexual partners**	❑	○	○	○	○	○
i. **Unsafe sex with sex trade clients**	❑	○	○	○	○	○
j. **Involved in the sex trade**	❑	○	○	○	○	○
k. **Have been tested for HIV?**	❑	○	○	○	○	○
l. **Have been tested for Hepatitis B?**	❑	○	○	○	○	○
m. **Have been tested for Hepatitis C?**	❑	○	○	○	○	○

Is there anything else you can tell us about the prevalence of unsafe injection or sexual behaviours among the IDUs in your community?

_____

_____

_____

Q-17 Approximately, what percentage of IDUs in your community have tested positive for:

(a) Hepatitis B? _____ **%** ❑ **Don't Know** **(b) Hepatitis C?** _____ **%** ❑ **Don't Know**

(c) HIV? _____ **%** ❑ **Don't Know**

Section D: Documentation and Additional Comments

Please use this section to provide us with any additional information of relevance to this study.

Q-18 ***The Final Report stemming from this study will include a listing of research, reports and other documents related to injection drug use in the Atlantic region.***

Please list any documents of which you are aware which contribute to a greater understanding of injection drug use in this region and should be considered in this Environmental Scan.

☐ **Don't Know of Any**

Title of Document:	**Author/Organization:**	**Where/how this document can be obtained:**
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____

Q-19 **What other groups/organizations are you aware of in your community which do work related to injection drug use?**

Name of Group/Organization:	**Contact Name:**	**Telephone Number:**
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____

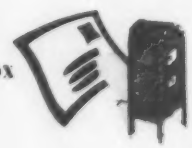
Q-20 **Do you have any additional comments about any aspects of this survey?**

(If you need additional space, please use the back or attach a separate sheet.)

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Thank You Very Much for Taking the Time to Complete This Survey!

Please place your questionnaire in the envelope provided and drop it in a mailbox as soon as possible.



APPENDIX B: Provincial Epidemiological Survey

1. Your name: _____ Title: _____

2. Department: _____ Tel #: _____ Fax #: _____

3. **(a) Statistics and Surveillance: HIV/AIDS Cases to Date**

   - **Reporting time frame: From: ____ / ____ (mm/yy) To: ____ / ____ (mm/yy)**

Total HIV/AIDS Cases to Date*	**# cases**	**% total**
Gender:		
Male		
Female		
Unspecified		
Risk Factors:		
History of IDU		
Unspecified		
**** Please include both HIV and AIDS cases, removing duplicates where possible.***		

(b) History of Injection Drug Use as a Risk Factor by Year of HIV/AIDS Diagnosis

Year of HIV/AIDS Diagnosis	**# cases with IDU history**	**% total cases diagnosed in year**
Before 1990		
1990		
1991		
1992		
1993		
1994		
1995		
1996		
1997		
1998		
1999		
2000 (to: _____ specify month)		

4. Do you have any comments regarding trends or patterns in HIV/AIDS epidemiology among injection drug users in your province?

_____

_____

_____

5. **(a) Statistics and Surveillance: Hepatitis B Cases to Date**

- **Reporting time frame: From: ____/____ (mm/yy) To: ____/____ (mm/yy)**

Total Hepatitis B Cases to Date	**# cases**	**% total**
Gender:		
Male		
Female		
Unspecified		
Risk Factors:		
History of IDU		
Unspecified		

(b) History of Injection Drug Use as a Risk Factor by Year of Hepatitis B Diagnosis

Year of Hepatitis B Diagnosis	**# cases with IDU history**	**% total cases diagnosed in year**
Before 1990		
1990		
1991		
1992		
1993		
1994		
1995		
1996		
1997		
1998		
1999		
2000 (to: _____ specify month)		

6. Do you have any comments regarding trends or patterns in Hepatitis B epidemiology among injection drug users in your province?

_____

_____

_____

_____

7. **(a) Statistics and Surveillance: Hepatitis C Cases to Date**

- **Reporting time frame: From: ____/____ (mm/yy) To: ____/____ (mm/yy)**

Total Hepatitis C Cases to Date	# cases	% total
Gender:		
Male		
Female		
Unspecified		
Risk Factors:		
History of IDU		
Unspecified		

(b) History of Injection Drug Use as a Risk Factor by Year of Hepatitis C Diagnosis

Year of Hepatitis C Diagnosis	# cases with IDU history	% total cases diagnosed in year
Before 1990		
1990		
1991		
1992		
1993		
1994		
1995		
1996		
1997		
1998		
1999		
2000 (to: _____ specify month)		

8. Do you have any comments regarding trends or patterns in Hepatitis C epidemiology among injection drug users in your province?

_____

_____

_____

_____

_____

9. Age distribution of HIV/AIDS, Hepatitis B, and Hepatitis C Cases with injection drug use as a risk factor

Age Group at Diagnosis (IDU as risk factor):	**# HIV/AIDS cases**	**# Hepatitis B cases**	**# Hepatitis C cases**
< 15 yrs			
15–19 yrs			
20–29 yrs			
30–39 yrs			
40–49 yrs			
50–59 yrs			
60+ yrs			
Unspecified			
TOTAL CASES			

10. Is there any thing else you can tell us about the prevalence of HIV, Hepatitis B, Hepatitis C or other communicable diseases (e.g. TB) among the injection drug users in your province?

_____

_____

_____

_____

11. The Final Report stemming from this study will include a listing of research, reports and other documents related to injection drug use in the Atlantic region. Please list any documents or reports that contribute to a greater understanding of injection drug use and communicable diseases (e.g. HIV/AIDS, Hepatitis B, Hepatitis C) in your province and should be considered in the Final Report.

Title of Document:	**Author/Organization**	**How to obtain:**
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____

12. Do you have any additional comments or information about any aspects of this study?

_____

_____

_____

_____

Please return this questionnaire by Fax by <u>May 12</u> to Caroline Ploem at (506) 455-9862.
Thank you for your time and collaboration!

APPENDIX C: Key Informant Interview Guide

A. Background Contact Information:

1. (a) Name: _____

   (b) Organization: _____

   (c) Position: _____

B. Role/Experience Related to Injection Drug Use:

2. Can you briefly describe your **role/experience** related to injection drug use?

3. Since when have you **gained experience** related to injection drug use: _____**(yr)**

4. With approximately **how many IDUs** have you ever personally worked? _____ **(# IDUs)**

C. Specific Research Questions:

5. (a) What can you tell me about the **demographic characteristics** of IDUs in your area or community?

   Gender? Age? Educational Level? Urban/Rural Living? Ethnicity?

   (b) Have you noticed (or are you aware of) any **trends or patterns related to the demographic characteristics** of IDUs over the years?

6. (a) From your experience, what can you tell us about the **drugs being used?** What are the **drugs of choice**? Where does **injecting most commonly** happen?

   (b) Do you have any comments on the **trends or patterns** related to the types of **drugs being used/drugs of choice/injection locations** over the years?

7. What is your sense about the **prevalence of HIV, Hepatitis B, or Hepatitis C** among IDUs in your community? Is it a concern to IDUs? Are IDUs being tested?

8. From your experience, how do IDUs **generally react to safer injection/safer sex messages**?

9. What can you tell us about the **other health-related risks of IDUs** in your community?

10. What is available in your community for the **education/support** of IDUs?

11. What else should be done in your community to **reduce the harms associated** with injection drug use?

12. Any **additional comments** (i.e. Is there anything else we should know re. IDU in your community?)

APPENDIX D: List of Key Informants

Participant	Organizational Affiliation	Location
New Brunswick		
Lucie Audet	Department of Health & Wellness (Public Health)	Saint John
Michel Bassonnault	RCMP Drug Section	Bathurst
Dr. Timothy Christie	Department of Health & Wellness (PHMS)	Fredericton
Joan Clark	Department of Health & Wellness (Public Health)	Miramichi
Ginette Desjardins	Department of Health & Wellness (Public Health)	Grand Falls
Julie Dingwell	AIDS Saint John	Saint John
Sue Downs	Addiction Services	Campbellton
Dr. Margaret Dykeman	UNB Faculty of Nursing (Partners in Harm Reduction)	Fredericton
Haley Flaro	AIDS New Brunswick	Fredericton
Michel Fournier	RCMP	Fredericton
Erika Ganz	AIDS Saint John/Street Outreach	Saint John
Margot Green	AIDS Saint John	Saint John
Dave Hardy	Saint John Community Chaplaincy	Saint John
Nancy Hicks	Ridgewood Addiction Services	Saint John
Bob Jones	Department of Health & Wellness (Addiction Services)	Fredericton
Olive Keith	Department of Health & Wellness (Public Health)	Saint John
Dr. David C. Khoun	Private Practice	Grand Falls
Diane Lapointe	Department of Health & Wellness (Public Health)	Fredericton
Odette LeBlanc Pellerin	CSC Atlantic Region	Moncton
Dr. Frank Lord	Dorchester Penitentiary/Moncton Detox Centre	Moncton
Joanne Murray	John Howard Society	Moncton
Claude Olivier	AIDS New Brunswick	Fredericton
Maria Richard	Department of Health & Wellness (Public Health)	Moncton
Debi Ripley	Moncton Chapter of the HeCSC	Moncton
John Sabine	RCMP-Street Crime Unit	Saint John
Susan Steeves	Dorchester Penitentiary	Dorchester
Dr. André Touchburn	Westmorland Institution	Dorchester
Deborah Warren	SIDA AIDS Moncton	Moncton
Joan Watling	Addiction Services	Miramichi
Nova Scotia		
Marianne Anderson	John Howard Society of NS	Halifax
Diane Bailey	Mainline Needle Exchange	Halifax
Jacqueline Beal	Department of Health (Public Health Services)	Amherst
Carolyn Bennett	Stepping Stone	Halifax
Dr. Graeme Bethune	Private Medical Practice	Halifax
Caroline Caseley	Department of Health (Public Health Services)	Bridgewater
Ruth Davis	Department of Health (Public Health Services)	Yarmouth
Monique Fong	Atlantic First Nations AIDS Task Force	Halifax
Dr. John Fraser	North End Community Health Centre	Halifax
Dr. Zachary Fraser	Drug Dependency Services Central Region	Dartmouth
Georgina Funge	Springhill Institution	Springhill
Darrell Gaudet	Halifax Regional Police	Halifax

Participant	Organizational Affiliation	Location
Cory Harris	Cape Breton Chapter of the HeCSC	Sydney
Essie Hickey	Mainline Needle Exchange	Halifax
Peter Keirstead	RCMP	Halifax
Frank M. Landry	RCMP	Yarmouth
Kay MacIsaac	Department of Health (Public Health Services)	Dartmouth
Beverley Cash MacLeod	Department of Health (Public Health Services)	Sydney
Sheila McCurdy	Department of Health (Public Health Services)	Wolfville
Mitch McIntyre	Halifax Regional Police	Halifax
Helen McLeod	Department of Health (Addiction Services)	Pictou
Barry McNeil	Department of Health (Addiction Services)	Sydney
Brian Richardson	RCMP	Stellerton
Dr. David Rippey	Springhill Institution	Springhill
Debra Dubreuil Walsh	Sharp Advice Needle Exchange	Sydney
Carol White	Department of Justice/Halifax Correctional Centre	Halifax
Not provided	Sex Trade Worker	Sydney
Not provided	Sex Trade Worker	Sydney
Not provided	Sex Trade Worker	Sydney
Not provided	Private Medical Practice	Halifax
Prince Edward Island		
Barry Arsenault	Summerside Police Service	Summerside
Donna Bulman	AIDS PEI	Charlottetown
Mary Giddings	Public Health	Kensington
Mae Gorrill	PEI Department of Health & Social Services	O'Leary
Mike Kennedy	RCMP- J.F.O. "L" Division Drugs	Charlottetown
Jo Ann Macdonald	PEI Department of Health & Social Services	Charlottetown
Kevin McNeil	RCMP Drug Awareness	Charlottetown
Dr. Lamont Sweet	PEI Department of Health & Social Services	Charlottetown
Kay Trainor	Addiction Services	Charlottetown
Newfoundland		
Kim Baldwin	Health and Community Services	St. John's
Colleen Greene	Health and Community Services	Gander
Paul Hierlihy	Royal Newfoundland Constabulary	St. John's
Irene Howlett	Health and Community Services	St. John's
Glenda Manning	Department of Justice, Pleasantville Youth Centre	St. John's
Patricia Murphy	NF & Lab AIDS Committee	St. John's
Cathy O'Keefe	Health and Community Services	St. John's
Tina Parsons	Addiction Services	St. Anthony
Gary Styles	RCMP	St. John's
Ronald Tizzard	Health and Community Services (Addiction Services)	St. John's

APPENDIX E: Listing of Related Research and Documentation (1992–)

A. Primary Focus on Atlantic Canada

Barceló, A., Duffett-Leger, L., & Jones, B. *Canadian Community Epidemiology Network on Drug Use: Fredericton Report.* New Brunswick Department of Health and Community Services: Provincial Epidemiology Service. 1998.

Barceló, A., Jones, B., & Grobe, C. *Provincial Student Drug Use Survey: Highlights 1998.* New Brunswick Department of Health and Community Services: Provincial Epidemiology Service. October 1998.

Balram, C. *New Brunswick Student Drug Use Survey 1996.* Fredericton, New Brunswick: Department of Health and Community Services. 1997.

Correctional Service of Canada, Health Canada, Nova Scotia Department of Health. *The Springhill Project Report.* Springhill, Nova Scotia. August 1999.

Dow, John R., MacLaren, Connie M., & Skinner, Erin L. "An Economic Evaluation of the Main Line Needle Exchange." Unpublished paper prepared for the School of Health Services Administration. Dalhousie University. Halifax, Nova Scotia. Spring 1998.

Flint, Marion & Hickey, Essie. *Children of Drug Addicted Parents.* Halifax, NS: Main Line Needle Exchange. July 1997.

Grandy, T. *New Occupational Hazards of Career Addicts: Main Line Intravenous Needs Assessment.* Halifax, NS: Main Line Needle Exchange. 1995.

Halifax Regional Epidemiology Network on Drug Use. *Drug Use in Halifax: 1996.* Halifax: The Network. April 1998.

Lior, L. & Stratton, E. *The Eastern Region Project: Seroprevalence of HIV, Hepatitis B and Hepatitis C Viruses and High Risk Behaviours Among IDU and Sexual Partners of IDU.* Halifax, NS: Nova Scotia Department of Health. 1998.

Lior, L., Beal, J., Portman, J., Rud, E., Chaudhary, R., Scott, J., & Archibald, C. *A Look Behind Closed Doors: Injection and Sexual Risk Behaviour and HIV, HBV and HCV Inside a Canadian prison.* 12th World AIDS Conference. Geneva, Switzerland. June 28–July 3, 1998.

Mainline Needle Exchange. "Compilation of Mainline Needle Exchange Questionnaire: August 6–March 31, 1999." Unpublished report prepared by Mainline Needle Exchange. Halifax, Nova Scotia. Spring 1999.

Poulin, C. & Wilbur, B. *Nova Scotia Student Drug Use 1996: Technical Report*. Halifax, NS: Department of Health and Dalhousie University, 1996.

Poulin, C., Van Til, L., Wilbur, B., Clarke, B., MacDonald, C., Barceló, A., & Lethbridge L. Alcohol and other drug use among adolescent students in the Atlantic Provinces. *Canadian Journal of Public Health, 90*(1): 27–29, 1999.

Poulin, C., Clarke, B., Balram, C., Wilbur, B., & Bryant, E. *Student Drug Use Surveys in the Atlantic Provinces: A Standardized Approach*. NHRDP grant #6603-1402-DA. Halifax, NS: Dalhousie University, January 1997.

Poulin, C., Gyorkos, T.W., MacPhee J., Cann, B., & Bickerton, J. Contact-tracing among injection drug users in a rural area. *Canadian Journal of Public Health, 83*(2): 106–108, 1992.

Poulin, C. An epidemic of hepatitis B among injection drug users in a rural area. *Canadian Journal of Public Health, 83*(2): 102–105, 1992.

Spurrell, D., Clarke, B., & MacDonald, C.A. *Newfoundland and Labrador Student Drug Use Survey 1996: Technical Report [and] Summary Report*. St. John's, NF: Newfoundland and Labrador Department of Health, 1996.

Stratton, E., Sweet, L., Latorraco-Walsh, A., & Gully, P.R. Hepatitis C in Prince Edward Island: a descriptive review of reported cases, 1990–1995. *Canadian Journal of Public Health, 88* (2): 91–94, 1997.

Stratton, E., Lior, L., Gully, P., Archibald, C., Lee, S., Chaudhary, R., & Woodford, E. *HIV, HBV and HCV and risk behaviours in a semi-rural community in Canada*. 12th World AIDS Conference, Geneva, Switzerland, June 28–July 3, 1998.

Sweet, L., Van Til, L., & Abbott, L. *Voluntary Anonymous HIV Survey of PEI Addiction Treatment Facility Patients*. Charlottetown, PEI: PEI Department of Health and Social Services and the Queen Elizabeth Hospital Laboratory, March 31, 1996.

B. Some Focus on Atlantic Canada

Bureau of HIV/AIDS STD and TB Update Series, Laboratory Centre for Disease Control. *HIV/AIDS Among Injection Drug Users in Canada*. Ottawa: Health Canada HIV/AIDS Epi Update, May 1999.

Bureau of HIV/AIDS STD and TB Update Series, Laboratory Centre for Disease Control. *Risk Behaviours Among Injection Drug Users in Canada*. Ottawa: Health Canada HIV/AIDS Epi Update, May 1999.

Canadian HIV/AIDS Legal Network. *Injection Drug Use and HIV/AIDS: Legal and Ethical Issues.* Montreal: The Network. 1999.

Interdepartmental Working Group on Substance Abuse. *Canada's Drug Strategy.* Ottawa: Minister of Public Works and Government Services. 1998.

McAmmond. D. *Care. Treatment and Support for Injection Drug Users Living with HIV/AIDS: A Consultation Report.* Ottawa: Health Canada. March. 1997.

National Task Force on HIV. AIDS and Injection Drug Use. *HIV. AIDS and Injection Drug Use: A National Action Plan.* Ottawa: Canadian Centre on Substance Abuse and the Canadian Public Health Association. 1997.

Poulin. C.. Single. E.. & Fralick. P. *Canadian Community Epidemiology Network on Drug Use (CCENDU): Second National Report 1999.* Ottawa: Canadian Community Epidemiology Network. 1999.

Poulin. C.. Fralick. P.. Whynot. E.M.. el-Guebaly. N.. Kennedy. D.. Bernstein. J.. Boivin. D.. & Rinehart. J. The epidemiology of cocaine and opiate abuse in urban Canada. *Canadian Journal of Public Health. 89*(4): 234–238. 1998.